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GenCore version 5.1.3 Copyright (c) 1993 - 2003 Compugen Ltd.
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OM nucleic - nucleic search, using sw model

April 2, 2003, 12:17:07; Search time 4718 Seconds (without alignments) 9517.938 Million cell updates/sec Run on:

US-09-891-138A-1 Title: Perfect score:

1 gctcctggcagagttttctg......tgcctaaataaatcaatata 1543 Sequence:

Scoring table: IDENTITY\_NUC Gapext 1.0

2054640 seqs, 14551402878 residues Searched:

4109280 Total number of hits satisfying chosen parameters:

Minimum DB seq length: 0 Maximum DB seq length: 200000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

GenEmbl:\*/
1. gb\_ba:\*/
3. gb\_htg:\*/
4. gb\_om:\*/
5. gb\_om:\*/
6. gb\_pat:\*/
7. gb\_ph:\*/
8. gb\_ph:\*/
9. gb\_ph:\*/
10. gb\_st:\*/
112. gb\_sy:\*/
113. gb\_sy:\*/
114. gb\_vi:\*/
115. em\_ba:\*/
116. em\_lun:\*/
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118. em\_lun:\*/ Database :

em\_vi:\*
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em\_htgo\_other:\*

score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

## STIMMARTES

	Description	Sedn	AC116149 Mus muscularity AC116149 Mus muscu	Ношо	НОШО	Seque		Seque	Mele	AC101335 Mus muscu AX148186 Segmence		AX384211 Sequence AB083598 Homo sapi	Homo		AB065877 Homo sapi	AX379470 Sequence		AX305130 Sequence	AX464561 Sequence AX147840 Sequence	ALS90151 Zebrafish	X98283 G.domesticu AC108794 Mus muscu	Rattus n	AF069555 Meleagris AX458308 Sequence	Segue	X/3268 G. domestic U22830 Rattus norv	s taur	X87628 B.taurus mR S81950 P2 purinoce	6	88	021662 Homo sap			DNA linear PAT 01-MAR-2002		Craniata; Vertebrata; Euteleostomi; Sciurognathi; Muridae; Murinae; Mus.	Cutler,G. 72;
SUMMARIES	ID	AX376573 AF295367	ACT16149 AC116149	AF247785	AF 348075 BC030948	AX342665	AC068647	AR035943 AC016455	AF031897	AC101335 AX148186	AX379468	AA384211 AB083598	AF411109	AF370886	AB065877 AX191332	AX379470	AL356486 AC026756	AX305130	AX464561 AX147840	AL590151	GDF213 AC108794	AC116265	AF069555 AX458308	AX375230	GDATPREC RNU22830	BTU34041	BTP2YRECP S81950	4202	4203 569	AC021662	ALIGNMENTS	1543 bp. t W00200719. 74		Chordata; Cran Rodentia; Sciu	Chen, J.L. and C A 1 03-JAN-2002	
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LFCMKNWNSSNVYLFNLSISDFAFLCTLPILIKSYANDKGTYGDVLCISNRYVLHTNL
YTSILFLTFISMDRYLLMKYPFREHFLQKKEFALLISLAVWALVTLEYLPMLTFINSV
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                          CATGCGCAATTTGAGGATCGCCTCACGCCTGGATAGTTGGCCACAAGGATGTACACAGAA
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Mus musculus G-protein coupled receptor GPR91 mRNA,
AF295367
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TALPLDKPQRLVVLAVVIFSILFTFYHIMRNIRIASRLDSWPGGCTQKAIKSIYTHTR
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2 (bases 1 to 1598)
Wittenberger, T., Schaller, C.H. and Hellebrand, S. Direct Submission
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Entwicklungsneurobiologie, Martinistr. 52, Hambu
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Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
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661 GGTAGTCTTCTTAAAGAGGAGGAGCCAGCAGCAAGCAACTGCCCTGCCACTGGACAAACC
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Linton,L., Nusbaum,C., Lander,E., Ali,A., Allen,N.,

Barren,B., Linton,L., Nusbaum,C., Lander,E., Ali,A., Allen,N.,

Barren,B., Linton,L., Bastlen,V., Bloom.T., Boquslavkiy,L.,

Boukhgalter,B., Brown,A., Camarata,J., Campopiano,A., Chang,J.,

Chazaro,B., Cooke,P., DeArellano,K., Dewar,J.S., Collymore,A.,

Cook,A., Cooke,P., DeArellano,K., Dewar,J.S., Dodge,S.,

Faro,S., Ferreira,P., Fitzlano,K., Dewar,J., Galagan,J., Gardyna,S.,

Ginde,S., Gord,S., Goyette,M., Graham,L., Grand-Pierre,N.,

Ramat,A., Karatas,A., Kells,C., Lancocque,K., Lancares,R.,

Landers,T., Lehoczky,J., Levine,R., Lindblad-Toh,K., Liu,G.,

MacLean,C., Macdonald,P., Major,J., Marquis,N., Matthews,C.,

McCarthy,M., McEwan,P., McKernan,K., Meldrim,J., Meneus,L.,

Mihova,T., Mlenga,V., Murphy,T., Naylor,J., Nguyen,C., Nicol,R.,

Norbu,C., Norman,C.H., O'Connor,T., O'Donnell,P., O'Neil,D.,

Oliver,J., Peterson,K., Phunkhang,P., Pierre,N., Pollara,V.,

Raymond,C., Retta,R., Rieback,M., Riley,R., Rise,C., Rogov,P.,

Roman,J., Rosettl,M., Roy,A., Santco,R., Schauer,S., Schupback,R.,

Scraus,N., Subramanan,A., Travis,N., Trigillo,J., Vassillev,H.,

Viel,R., Vo,A., Wilson,B., Wu,X., Wuyman,D., Ye,W.J., Young,G.,

Zainoun,J., Zembek,L., Zimmer,A. and Zody,M.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Submitted (25-WAR-2002) Whitehead Institute/MIT Center for Genome Research, 320 Charles Street, Cambridge, MA 02141, USA All repeats were identified using RepeatMasker:
Smit, A.F.A. & Green, P. (1996-1997) http://ftp.genome.washington.edu/RM/RepeatMasker.html
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Center: Whitehead Institute/ MIT Center for Genome Research
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         * NOTE: This record contains 77 individual
* sequencing reads that have not been assembled into
* contigs. Runs of N are used to separate the reads
and the order in which they appear is completely
* arbitrary. Low-pass sequence sampling is useful for
* identifying clones that may be generated and allows
* overlap relationships among clones to be deduced.
* However, it should not be assumed that this clone
* will be sequenced to completion. In the event that
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Web site: http://www-seq.wi.mit.edu
Contect: sequence_submisslons@genome.wi.mit.edu
Contect: sequence_submisslons@genome.wi.mit.edu
Center project name: L24912
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         the record is updated, the accession number will
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1527 2210: contig of 684 bp in length
2211 2310: gap of 100 bp
2311 2997: contig of 687 bp in length
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f 697 bp in length
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f 567 bp in length
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757 1426: contig of 670 bp in length
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f 689 bp in length
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f 698 bp in length
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          Nusbaum, C. and Lander, E.
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              Birren,B., Linton,L., Nusbaum,C
Mus musculus, clone RP24-540E9
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5357: com
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3786: co
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3887 4577: co
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6150: cc
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                                                      Unpublished
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JOURNAL
              AUTHORS
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COMMENT

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17029 17282: contig of 674 bp in length 17803 17902: gap of 100 bp 17803 17902: gap of 100 bp 17803 18694 19375: contig of 682 bp in length 18694 19375: contig of 682 bp in length 19376 19475: gap of 100 bp 19376 19475: gap of 100 bp 20083 20835: contig of 607 bp in length 20083 20875: contig of 607 bp in length 20083 20875: contig of 675 bp in length 20183 20875: contig of 675 bp in length 20183 2250: contig of 675 bp in length 2151 22428 2252; gap of 100 bp 21551 22428 225238: contig of 677 bp in length 22528 22528 22528 22528 22528 22528 23238: contig of 771 bp in length
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26357: contig of 654 bp in length
157: gap of 100 bp
140: gap of 100 bp
140: gap of 100 bp
27946: contig of 706 bp in length
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   23238: contig of 711 bp in length 138: gap of 100 bp 24028: contig of 690 bp in length 28: gap of 100 bp 24803: contig of 675 bp in length
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33583 34274; contig of 692 bp in length
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of 100 bp contig of 690 bp in length
                                                                                        10088: gap of 100 bp
10768: contig of 680 bp in length
10868: gap of 100 bp
11524: contig of 656 bp in length
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                                                                                                                                                                                                                                                                                                                                                                       42: gap of 100 bp
13040: contig of 698 bp
40: gap of 100 bp
13829: contig of 689 bp
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contig of 618 bp
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3890 AGAICIGATAICICGCCCIGIGGAAITCICAGGCIATCIIGAAIAAGIACIACCICI 3949
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1637 bp in length
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rf 691 bp in length
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698 bp in length
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47739: gap of 100 bp
48431: contig of 692 bp in length
 in length
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681 bp in length
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690 bp in length
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 645.8; DB 2;
Pred. No. 6.9e-135;
0; Mismatches 127;
                                   100 bp
691 bp
                                                          100 bp
679 bp
                                                                                  100 bp
of 684 bp
                                                                                                          100 bp
695 bp
                                                                                                                                                       100 bp
f 677 bp
                                                                                                                                                                                                                                                  p of 100 bp
contig of 705 bp
            47: gap of 100 bp
38243: contig of 696 bp
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50799: contig of 682 bp
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42967: contig of 677
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                                               contig of
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40597: contig
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45306: contig
37447: contig
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53167: cont
       37448 37547: gap of
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39813: con
                                   gap of
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41392: con
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46111: con
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47639: cont
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49221: cont
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84.0%;
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Anderson, S., Barna, N., Bastien, V., Bloom, T., Boguslavkiy, L.,
Anderson, S., Barna, N., Bastien, V., Bloom, T., Boguslavkiy, L.,
Boukhgaller, B., Brown, A., Camarata, J., Campopiano, A., Chang, J.,
Chazaro, B., Choepel, Y., Colangelo, M., Collins, S., Collymore, A.,
Cook, A., Cooke, P., DeArellano, K., Dewar, K., Diaz, J. S., Dodge, S.,
Faro, S., Ferrelara, P., FitzHudh, W., Gage, D., Galagan, J., Gardyna, S.,
Ginde, S., Gord, S., Goyette, M., Graham, L., Grand-Pierre, N.,
Hagos, B., Horton, L., Hulme, W., Illev, I., Johnson, R., Jones, C.,
Kamat, A., Raratas, A., Kalls, C., LaRocque, K., Lamazares, R.,
Landers, T., Lehoczky, J., Leythe, R., Lindblad-Toh, R., Liu, G.,
MacLean, C., Macdonald, P., Major, J., Marquis, N., Matthews, C.,
MacLean, C., Macdonald, P., Major, J., Marduin, J., Meney, L.,
Mihova, T., Menga, V., Murphy, T., Naylor, J., Nguyen, C., Nicol, R.,
Oliver, J., Peterson, K., Phunkhang, P., Plerre, N., Pollara, V.,
Raymond, C., Retta, R., Rieback, M., Riley, R., Schuer, S., Schupback, R.,
Seman, J., Rosetti, M., Roy, A., Santos, R., Schauer, S., Schupback, R.,
Strauss, N., Subramanian, A., Talamas, J., Tesfaye, S., Theodore, J.,
Topham, K., Travers, M., Travis, N., Trigilio, J., Vassiliev, H.,
Vola, K., Vola, K
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Mammalia; Eutheria; Rodentia; Sciuroqnathi; Muridae; Murinae: Mus
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471 GGGCCTTAGTGACCTTAGAAGTTCTACCCATGCTCACTTTCATCAATTCTGTCCCAAAAG
                                                                                                                                                                                                                                          531 AAGAGGCCAGTAACTGCATCGACTATGCAAGTTCTGGAAACCCTGAACACAATCTCATTT
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Mus musculus clone RP24-540E9, LOW-PASS SEQUENCE SAMPLING.
AC116149
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16949 47639; contig of 691 bp
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                                                                                       con.
23238:
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39813: cont
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42190; cont
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20875: con
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                                                                                                                                                                                                              25604
           Research, 320 Charles Street, Cambridge, MA 02141, USA
                                                                                                                                                                                                  contigor. Runs of Nare used to separate the reads and the order in which they appear is completely arbitrary. Low-pass sequence sampling is useful for identifying clones that may be gene-rich and allows overlap relationships among clones to be deduced. However, it should not be assumed that this clone will be sequenced to completion. In the event that the record is updated, the accession number will
                                                                                                                                                                          NOTE: This record contains 77 individual sequencing reads that have not been assembled into
                                                                                                        Contact: sequence_submissions@genome.wi.mit.edu
------- Project Information
Center project name: 124912
Center clone name: 540_E_9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                17029 17128; gap of 100 bp
17129 17802; contig of 674 bp in length
17803 17902; gap of 100 bp
17903 18593; contig of 691 bp in length
18594 18693; gap of 100 bp
18694 19375; contig of 682 bp in length
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12242: contig of 618 bp in length
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718 bp in length
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16247: contig of 696 bp in length
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f 687 bp in length
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f 680 bp in length
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                                                                                Center code: WIBR
Web site: http://www-seg.wi.mit.edu
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4577: co
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1492: gap of 100 bp 42190: contig of 698 bp in length 42290: gap of 100 bp 42677: contig of 677 bp in length 3067: gap of 100 bp 100 bp 14736: contig of 669 bp in length f: contig of 691 bp in length app of 100 bp in length 3: contig of 679 bp in length app of 100 bp in length 100 bp in length 100 bp in length 2: contig of 695 bp in length 2: contig of 695 bp in length 74: gap of 100 bp 35081: contig of 707 bp in length 88: gap of 100 bp 35861: contig of 680 bp in length 61: gap of 100 bp 100 bp 35660: contig of 699 bp in length 36660: contig of 699 bp in length 100 bp f 689 bp in length 106: gap of 100 bp 46111: contig of 705 bp in length 111: gap of 100 pp 100 pp 111: gap of 637 bp in length 46848: contig of 637 bp in length 110: gap of 100 bp 12691: contig of 681 bp in length 9791: gap of 100 bp 13482: contig of 691 bp in length 182: gap of 100 bp 10 36760: gap of 100 bp 37447: contig of 687 bp in length 37547: gap of 100 bp 38243: contig of 696 bp in length 100 bp 691 bp in length 44625: gap of 100 bp 45306: contig of 681 bp in length in length 40: gap of 100 bp 10746: contig of 688 bp in length 28734: contig of 688 bp in length 30324: contig of 688 bp in length 124: gap of 100 bp 13130: contig of 706 bp in length 230: gap of 100 bp 1100 bp 131910: contig of 680 bp in length 31910: contig of 680 bp in length 75: gap of 100 bp 21650: contig of 675 bp in length 550: gap of 100 bp 22427: contig of 677 bp in length 127: gap of 100 bp 23238: contig of 711 bp in length 38: gap of 100 bp 24028: contig of 690 bp in length 55603: contig of 700 bp in length 100 sp 75: gap of 100 bp 20082: contig of 607 bp in length p of 100 bp contig of 693 bp in length 26357; contig of 654 bp in length in length 28: gap of 100 bp 24803: contig of 675 bp 34: gap of 100 bp 29536: contig of 702 bp 57: gap of 100 bp 27140: contig of 683 bp

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HANLYTSILFLTFISIDRYLIIKYPFREHLLOKKEFAILISLAIWULYTLELLEILPL
INDYTDDGTTCNDFASSODPWINLTYSMCLTLGFILFLEVROKFFYKIALFKORN
ROVATALPLEKFLNIVIMAVULFSVLFTPYHVMRNYAISRLGSMKOYOCTOVVINSF
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VYGYIFSLKNWNSSNIYLFNLSVSDLAFLCTLPMLIRSYANGNWIYGDVLCISNRYVL
                                                                              Homo sapiens
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                               Direct Submission
Submitted (21-MAR-2000) Department of Immunology, Second Military
Medical University & Shanghai Brilliance Biotechnology Institute,
800 Xiangyin Rd., Shanghai 200433, P.R. China
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                99 AGTACTACCTCTCTGCATTTTATGCAATCGAGTTCATTTTTGGACTGCTTGGGAATGTCA 158
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         159 CIGIGGTGTTCGGCTACCTCTTCTGCATGAAGAACTGGAACAGCAGCAATGTCTATCTTT 218
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          219 TTAACCTTTCCATCTCTGACTTTGCTTTCCTGTGCACCCTTCCCATCCTGATAAAGAGTT 278
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              339 ACACCAACCTCTACACCAGCATCCTCTTCCTTTCATTAGCATGGACCGATATCTGC 398
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     cch 38.4%; Score 592.4; DB 9; Length 1325; 11 Similarity 75.3%; Pred. No. 6.4e-123; 764; Conservative 0; Mismatches 246; Indels 4;
   Homo sapiens P2Y purinoceptor 1 mRNA, complete cds.
AF247785
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              246;
                                                                                                                                                                                                                                                                                                                                                                  /product="P2Y purinoceptor 1"
/protein_id="AAL95690.1"
/db_xref="GI:19716155"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        413 t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0; Mismatches
                                                                                                                     1 (bases 1 to 1325)
Zhang,W., Li,N., Wan,T. and Cao,X.
Human P2Y purinoceptor 1
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Zhang, W., Li, N., Wan, T. and Cao, X.
                                                                                                                                                                                                                                                                                                        /organism="Homo sapiens"
/db_xref="taxon:9606"
                                                                                                                                                                                                                                                                            Location/Qualifiers
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                                  AF247785.1 GI:19716154
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                                                                Homo sapiens.
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                                                                                                                                                                                                                                                                                                           379 TAGCATGGACCGATATCTGCTCATGAAGTACCCTTTCCGAG-AACACTTTCTACAAAA-G 436
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TICCIAATICCICTCICTGTGATGTGCTTCTTCTACTACAAGATGGTAGTCTTCTTAAAG
                                                                                                                                                                                                                                                         Length 60298;
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         48531: gap of 100 bp
49221: contig of 690 bp in length
49321: gap of 100 bp
50017: contig of 696 bp in length
                                                                      50117: gap of 100 bp
50799: contig of 682 bp in length
50899: gap of 100 bp
48431: contig of 692 bp in length
                                                                                                                                                              52484; gap of 100 bp
53267; contig of 683 bp in length
53267; gap of 100 bp
53966; contig of 699 bp in length
                                                                                                                                  83: gap of 100 bp
52384: contig of 701 bp in length
                                                                                                                 51583: contig of 684 bp in length
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Pred. No. 3.8e-132;
0; Mismatches 14;
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53167; cont
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PRI 03-APR-2001
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AF348078 1380 bp mRNA linear PRI 03-APR-200
Homo sapiens G-protein coupled receptor 91 (GPR91) mRNA, complete
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519 CTGTCCCAAAAGAAGAGGGCAGTAACTGCATCGACTATGCAAGTTCTGGAAACCCTGAAC
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                579 ACAATCTCATTTACAGCCTCTGCCTGACTTTGTTGGGCTTCCTAATTCCTCTCTGTGA
                                                                                CIGCCCTGCCACTGGACAAACCCCAACGCCTGGTGGTCCTGGCGGTTGTGATCTTCTCTA
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/db_xref="taxon:9606"
/chromosome="3"
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ITDNGTTCNDFASSGDPNYNLIYSMCLTLLGFLIPLEVMCRFYYKTALFLKORNROVA
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1 294 c 429 t 429 t
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                                                                                                                                                                                                   DB 9; Length 1380;
                                                                                                                                                                                                     Score 592.4; DB 9; Length
Pred. No. 6.5e-123;
0; Mismatches 246; Indels
/product="G-protein coupled receptor 91"
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/db_xref="GI:13517983"
                                                                                                                                                                                                       sal Similarity 75.3%; 764; Conservative
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Clone distribution: MGC clone distribution information can be found through the I.M.A.G.E. Consortium/LINL at: http://image.llnl.gov Series: IRAL Plates 41 Row: e Column: 17 This clone was selected for full length sequencing because it passed the following selection criteria: matched mRNA gi: 14780893. Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                mRNA linear PRI 13-JUN-2002 receptor 91, clone MGC:32514
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/protein_id="AAH30948_1"

/db_xref="G1:2141092#
//translation="MLGIMARNATCKNWLAAEAALEKYYLSIFYGIEFVGYLGUTIV
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INPLITDNGTTCNDFASGDPNYNLIYSWLCTLLGFLIPLEVWGYRYTRAFLKQRN
RQVATALPLEKPLNIYMAVVIFSVLFTPYHVMRNRIASRGSWGYGCTQVYINSF
YIVTRPLAFLNSVINPVYFLLGDHFRDMLMNOLRHNFKSLISFREK
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Catarrhini, Hominidae, Homo.
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CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: Sequencing Group at the Stanford Human Genome
Center, Stanford University School of Medicine, Stanford, CA 943
Web site:
Contact: (Dickson, Mark) mcd@paxil.stanford.edu
Dickson, M., Schmutz, J., Grimwood, J., Rodriquez, A., and Myers,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Direct Submission
Submitted (03-JUN-2002) National Institutes of Health, Mammalian
Gene Collection (MGC), Cancer Genomics Office, National Cancer
                                                                                                    Institute, 31 Center Drive, Room 11A03, Bethesda, MD 20892-2590,
GAGAGATGCTGATTAGTAAGTTCAGACAATACTTCAAGTCCCTTACATCCTTCAGGACAT
                                                                                                                                                                         GAGCTGCTGGATGCAGGTCTTCACTCAGCCAAAA-TGAGACACTTGATAAACAG 1048
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Homo sapiens, G protein-coupled re
IMAGE:4594810, mRNA, complete cds.
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/db_xref="LocusID:56670"
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/clone_lib="NIH_MGC_75"
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Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Primates;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Contact: MGC help desk
Email: cgapbs-r@mail.nih.gov
Tissue Procurement: CLONTECH
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99 AGTACTACCTCTCTGCATTTTATGCAATCGAGTTCATTTTTGGACTGCTTGGGAATGTCA 158
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                                                                                                                                                                                          CTGTGGTGTTCGGCTACCTCTTCTGCATGAAGAACTGGAACAGCAGCAATGTCTATT 218
                                                                                                                                                                                                           227 TTGTTTACGCCTACATCTTCTCTCTGAAGAACTGGAACAGCAGTAATATTTATCTCT 286
                                                                                                                                                                                                                                                        TTAACCTITCCATCTCTGACTTTGCTTTCCTGTGCACCCTTCCCATCCTGATAAAGAGTT 278
                                                                                                                                                                                                                                                                                      287 TTAACCTCTCTCTCTCTGACTTAGCTTTTCTGTGCACCCTCCCCATGCTGATAAGGAGTT 346
                                                                                                                                                                                                                                                                                                                      ATGCCAATGATAAGGGGACCTATGGAGATGTTCTCTGTATAAGCAACCGATATGTGCTTC 338
                                                                                                                                                                                                                                                                                                                                        CGCTGGCTGTCTGGGCCTTAGTGACCTTAGAAGTTCTACCCATGCTCACTTTCATCAATT 518
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                                                                                                                                                                                                                                                                                                                                                                                    339 ACACCAACCTCTACACCAGCATCCTCTTCCTTTCATTAGCATGGACCGATATCTGC 398
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TGGCCTTTCTGAACAGTGCCATCAATCCCATCTTCTACTTCCTCATGGGAGACCATTACA 935
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                                      Gaps
                                                               399 TCATGAAGTACCCTTTCCGAGAACACTTTCTACAAAAGAAGGAATTTGCCATTTTAATCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          639 IGTGCTICTTCTACTACAAGAIGGTAGTCTTCTTAAAGAGGAGGAGCCAGCAAGCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CTGCTCTGCCCCTTGAAAAGCCTCTCAACTTGGTCATGACAGGCAGTGGTAATCTTCTCTG
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      759 TACTCTTCACACCCTATCATATCATGCGCAATTTGAGGATCGCCTCACGCCTGGATAGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GGGACATGCTGATGAATCAACTGAGACACAACTTCAAATCCCTTACATCCTTTAGCAGAT
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     Length 1449;
                                    Indels
     6
                                 0; Mismatches 246;
Score 592.4; DB 9;
Pred. No. 6.5e-123;
 38.4%;
                              Matches 764; Conservative
                Best Local Similarity
 Query Match
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Mammalia, Eutheria, Primates, Catarrhini, Hominidae, Homo.
                                                                                                                                                                                             Lal,P., Baughn,M.R., Hafalia,A.J., Nguyen,D.B., Gandhi,A.R.,
Kallick,D.A., Griffin,J.A., Yue,H., Khan,F.A., Patceson,C.,
Lu,D.A., Fribouley,C.M., Lu,Y., Walia,N.K., Graul,R., Yao,M.G.,
Yang,J., Ramkumar,J., Au-Young,J., Hernandez,R., Walsh,R.T. and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                458
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                39 GCAGAATGGCACAGAATTTATCTTGTGAGAATTGGTTGGCAACAGAGGCTATCTTGAATA 98
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  219 TTAACCTTTCCATCTCTGACTTTGCTTTCCTGTGCACCCTTCCCATCCTGATAAAGAGTT
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                                                                                                                                                                                                                                                                                                                                                                                                                                             Length 1542;
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                                 linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 592.4; DB 6;
Pred. No. 6.5e-123;
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                                                                                                                                                                                                                                                                                                                                                                              /note="Incyte ID No: 3485895CB1"
327 c 315 g 472 t
                                 DNA
                                                                                                                                                                                                                                                                              Patent: WO 0198351-A 20 27-DEC-2001;
Incyte Genomics, Inc. (US)
Location/Qualifiers
                                  Sequence 20 from Patent W00198351. AX342665
                                                                                                                                                                                                                                                                                                                                               /organism="Homo sapiens"
/db_xref="taxon:9606"
                               1542 bp
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Best Local Similarity 75.3%;
Matches 764; Conservative
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                                                                                                                                Homo sapiens
                                 AX342665
                                                                                                                  human.
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ORIGIN
                                              DEFINITION
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RESULT 8
AX342665
                                                                                                   KEYWORDS
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Manmalia; Burneria; Primares; Catarinini; Hominidae; Nower, Manmalia; Burneria; Primares; Catarinini; Hominidae; Nationae, C., Are, JR., Apele, M., Banks, T., Barbaria, J., Benton, J., Bimage, K., Blankenburg, K., Bonnin, D., Burbaria, J., Benton, J., Burkett, C., Burenil, K., Bonnin, D., Bunder, J., Bowie, S., Brieva, M., Brown, E., Brown, M., Bryant, N.P., Bunder, C., Burch, P., Burkett, C., Burchil, K.L., Brido, N.C., Carron, T.F., Carter, M., Cavazos, S.R., Chacko, J., Chavez, D., Cox, C., Coyle, M.D., Dathorne, S.R., David, R., Davila, M.D., Davis, C., Davyla, M.D., Dan, A.L., Ding, Y., Dinh, H.H., Davis, C., Davyla, M.D., Dathorne, S.R., David, R., Barnhart, C., Edgar, D., Edards, C.C., Elhaj, C., Escotto, M., Earnhart, C., Edgar, D., Edards, G.C., Elhaj, C., Escotto, M., Earls, R., Garer, D., Edards, R., Ganer, T., Garcer, M., Hale, S., Hamilton, K., Harris, R., Hart, M., Havlak, P., Hawes, A., Holloway, C., Harris, K., Hart, M., Havlak, P., Hawes, A., Holloway, C., Harris, K., Hart, M., Havlak, P., Hawes, A., Holloway, C., Jookson, B., Homsi, F., Howartd, S., Chun, G., Liu, J., Liu, W., Li, Z., Lichtarge, O., Lieu, C., Liu, J., Liu, W., Li, Z., Lichtarge, O., Lieu, C., Liu, J., Liu, W., Martin, R., Martin, R., Martin, R., Martinez, E., Marsey, E., Mawhiney, E., McLeod, M. P., Martinez, E., Markson, J., Newtson, N., Nguyen, N., Nelson, D., Newtson, J., Maher, G., Miner, G., Miner, G., Miner, G., Miner, G., Martindale, M., Mooris, S., Morgan, M., Mooris, S., Odender, M., Perez, L., Peters, S., Pickens, R., Paycon, J., Newtson, J., Newtson, J., Peters, J., Peters,
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HOMO sapiens 3 BAC RPI1-3F11 (Roswell Park Cancer Institute Human
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Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
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                                                                                                                                         876 TGGCCTTTCTGAACAGTGCCATCAATCCCATCTTCTACTTCCTATGGGAGACCATTACA
699 CIGCCCIGCCACIGGACAAACCCCCAACGCCIGGIGGICCIGGCGGIIGIGAICIICICIA
                                                                                                                                                                                                                                                                       819 G---GCCACAAGGATGTACACAGAAGGCCATCAAATCTATATACACACTGACACGGGCCTC
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JOURNAL

TITLE

REFERENCE AUTHORS JOURNAL

COMMENT

JOURNAL REFERENCE AUTHORS

repeat\_region

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Scott,G., Shen,H., Shooshtari,N., Sisson,I., Sodergren,E.,
Sonaike,T., Sparks,A., Stanley,H., Stone,H., Sutton,A., Svatek,A.,
Tabor,P., Tamerisa,A., Tang,H., Tansey,J., Taylor,C.,
Taylor,T., Telfrod,B., Thomas,N., Thomas,S., Usmani,K., Vasquez,L.,
Vera,V., Villalon,D., Vinson,R., Wang,Q., Wang,S., Ward-Moore,S.,
Warren,R., Washington,C., Watlington,S., Willliams,G.,
Williamson,A., Wleczyk,R., Wooden,S., Warley,K., Wu,C.,
Wu,Y., F., Zhou,J., Zorrilla,S., Naylor,S.L., Weinstock,G. and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CLONE LENGTH: This sequence does not necessarily represent the entire insert of this clone. Overlapping regions of clones are only sequenced and submitted once, so the sequence for the remainder of the insert may be found in the record for the adjacent clones. Overlapping clones are noted at the beginning and end of the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            standard of double strand coverage with a minimum of 2 clones and 2 reads with no ambiguities or 2 chemistries with a minimum of 2 clones and 3 reads with no ambiguities. If the sequence quality for a region does not meet this standard, it will be indicated in the annotation as Low Coverage.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Local mapping ellotts.

Repeats are identified using RepeatMasker (A. Smit and P. Green, unpublished.) for Human and Mouse sequences.

Genes and Region of sequence similarity are identified by BLAST (Nuc. Acids Res. 25:3389-3402) similarity (expect < le-34) to the EST and CDNA sequences. Genes demonstrate at least two exons flanked by consensus splice sites that maintained sequence continuity across the splice junctions. Sequences that are not identical matches are annotated as similar.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Submitted (23-MAR-2002) Human Genome Sequencing Center, Department of Molecular and Human Genetics, Baylor College of Medicine, One Baylor Plaza, Houston, TX 77030, USA
3 (bases 1 to 90343)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Submitted (09-APR-2002) Human Genome Sequencing Center, Department of Molecular and Human Genetics, Baylor College of Medicine, One Baylor Plaza, Houston, TX 77030, USA
INFORMATION: http://www.hgsc.bcm.tmc.edu/ or email
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     STSs are identified using ePCR (Genome Res. 7:541-550) searches of a local database that includes entries from dbSTS, GDB, and
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ANNOTATION OF FEATURES:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (bases 1 to 90343)
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Unpublished
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Direct Submission
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                                                                                                                                                                                                                                                                                                                                                    Gibbs, R.
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FEATURES

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       286 TGATAAGGGGACCTATGGAGATGTTCTCTGTATAAGCAACCGATATGTGCTTCACACAA 345
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GTACCCTTTCCGAGAACACTTTCTACAAAAGAAGGAATTTGCCATTTTAATCTCGCTGGC 465
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       526 AAAAGAAGAGGCAGTAACTGCATCGACTATGCAAGTTCTGGAAACCCTGAACACAATCT 585
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    883 TCTGAACAGTGCCATCAATCCCATCTTCTACTTCCTCATGGGAGACCATTACAGAGAGT 942
                                                                                                                                                                                                                                                                                                                                                                                                                                          226 TICCAICICIGACTITGCITICCIGIGCACCCTICCCAICCIGATAAAGAGTTAIGCCAA 285
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  346 CCTCTACCACCAGCATCCTCTTCCTTTCATTAGCATGGACCGATATCTGCTCATGAA 405
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                                                                                                                                                                                                                         4; Gaps
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     166 GTTCGGCTACCTCTTCTGCATGAAGAACTGGAACAGCAGCAATGTCTTTTTAACCT
                                                                                                                                                                                         Length 90343;
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                                                                                                                                                                                           DB 9;
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75.5%;
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ic (bases 1 to 137745)

Muzny,D.M., Adams,C., Adio-Oduola,B., Ali-osman,F.R., Allen,C., Alsbrande, M.C., Are,J.R., Ayele,M., Banks,T., Barbar,J., Benfon,J., Biange,K., Blankenburg,K., Bonnin,D., Burbari,J., Borde,S.L., Maratunge,H.C., Burch,P.K., Brown,B., Brown,M., Bryant,N.P., Burbari,J., Bouck,J., Burkett,C., Burch,P.K., Brown,B., Brown,M., Bryant,N.P., Buhay,C., Burch,P., Burkett,C., Burch,P.K., Chen,G., Chowdhry,I., Christopoulos,C., Chen,G., Chen,G., Cox,C., Coyle,M.D., Dethorne,S.R., David,R., David,R., David,M.L., Davis,C., Coyle,M.D., Dethorne,S.R., Dah,H.H., Davis,C., Day-Carroll,L., Deferich,D.A., Davis,C., Edgar,D., Edwards,C.C., Elhaj,C., Escotto,M., Barnhart,C., Edgar,D., Edwards,C.C., Elhaj,C., Escotto,M., Farls,T., Ferraguto,D., Flagon,R.D., Haves,A., Hel.X., Harris,C., Harris,K., Harris,K., Harris,C., Harris,K., Harris,K., Harris,C., Harris,K., Harris,C., Harris,K., Harris,K., Harris,C., Harris,K., Harris,C., Harris,K., Harris,C., Harris,K., Harris,C., Marris,K., Man,U., Man,U.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Homo sapiens 3 BAC RP11-64D22 (Roswell Park Cancer Institute Human Approxes) complete sequence.
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Direct Submission
Submitted (06-MAY-2000) Human Genome Sequencing Center, Department
of Molecular and Human Genetics, Baylor College of Medicine, One
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
1 (bases 1 to 132745)
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                                                                                                         GCTGATTAGTAAGTTCAGACAATACTTCAAGTCCCTTACATCCTTCAGGACATGAGCTGC 1002
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Houston, TX 77030, USA

Baylor Plaza, Houston, 3 (bases 1 to 132745)

REFERENCE

'db\_xref="taxon:9606"

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E Worley, K.C.

Submitted (25 JUN-2002) Human Genome Sequencing Center, Department of Molecular and Human Genetics, Baylor College of Medicine, One Baylor Plaza, Houston, TX 77030, USA

(CE 7 (bases 1 to 132745)

)RS Morley, K.C.

3 Direct Submission

Submitted (24-JUL-2002) Human Genome Sequencing Center, Department of Molecular and Human Genetics, Baylor College of Medicine, One Baylor Plaza, Houston, TX 77030, USA

Baylor Plaza, Houston, TX 77030, USA
Direct Submission
Submitted (26-MAR-2002) Human Genome Sequencing Center, Department
of Molecular and Human Genetics, Baylor College of Medicine, One
Baylor Plaza, Houston, TX 77030, USA
4 (bases 1 to 132745)
                                                                                                                                                                                     Submitted (28-MAR-2002) Human Genome Sequencing Center, Department of Molecular and Human Genetics, Baylor College of Medicine, One Baylor Plaza, Houston, TX 77030, USA
                                                                                                                                                                                                                                                                                                                                         Submitted (29-MAR-2002) Human Genome Sequencing Center, Department of Molecular and Human Genetics, Baylor College of Medicine, One Baylor Plaza, Houston, TX 77030, USA 6 (bases 1 to 132745)
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On Mar 28, 2002 this sequence version replaced gi:19718616.
INFORMATION: http://www.hgsc.bcm.tmc.edu/ or email
gc-help@bcm.tmc.edu
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JOURNAL
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CLONE LENGTH: This sequence does not necessarily represent the entire insert of this clone. Overlapping regions of clones are only sequenced and submitted once, so the sequence for the remainder of the insert may be found in the record for the adjacent clones. Overlapping clones are noted at the beginning and end of the
                                                                                                                                                                                                                                                                                                                                                                                                                   STSS are identified using ePCR (Genome Res. 7:541-550) searches of a local database that includes entries from dbSTS, GDB, and local mapping efforts.

Repeats are identified using RepeatMasker (A. Smit and P. Green, unpublished.) for Human and Mouse sequences.

(Nuc. Acids Res. 25:389-3402) similarity are identified by BLAST (Nuc. Acids Res. 25:389-3402) similarity (expect < 1e·34) to the EST and cDMA sequences similarity (expect < 1e·34) to the EST and cDMA sequences of Sequences in the maintained sequence continuity across the splice sites that maintained sequence continuity across the splice junctions. Sequences that are not identical matches are annotated as similar.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCING READ COVERAGE: Sequencing is completed to a minimum
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                                                                                                                                                                                                                                                                                Features listing.
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standard of double strand coverage with a minimum of 2 clones and 2 reads with no ambiguities or 2 chemistries with a minimum of 2 clones and 3 reads with no ambiguities. If the sequence quality for a region does not meet this standard, it will be indicated in the annotation as Low Coverage. OUALITY OF INDIVIDUAL BASES:This sequence meets stringent quality standards - estimated error rate less than 1 per 10,000 bases. Reports of lowest quality individual bases and measures of base quality are listed below. Description of the metrics can be found at URL: http://gc.bcm.tmc.edu:8088/quality.info/genbank.annotation.

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/organism="Homo sapiens"
             Location/Qualifiers
1. .132745
QUALSTAT-REPORT
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Source

FEATURES

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/note="overlaps bases 170209. .172213 of clone AC069067"
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Pred. No. 2.3e-122;
0; Mismatches 243;
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rpt_family="Tigger3(Golem)"
2020. .12246
                                                        /function="clone overlap"
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14618. .14746
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/rpt_family="L2"
17621...17660
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3600, 3749
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404 7700
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complement.or?"
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/rpt_family="LiMD3"
complement(9287. .9357)
/rpt_family="MLT1F1"
                                                                                                                                  .2697)
                                                                                                                                                                                                                                                                                                                                                            /standard_name="183647"
                                                                                                  complement(522. .1015) /rpt_family="MLT1D" complement(2452. .2697
                                                                                      /standard_name="74493"
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18544. 18725
/rpt_family="MIR"
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4391. .4411
/rpt_family="AT_rich"
4909. .4960
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14865. .14906
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15465. .15739
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8045. .8318
                                                                                                                                                /rpt_family="L1MA5A"
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complement(10203. .1
              /clone="RP11-64D22"
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1468. .11699
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13326. .13346
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11717. .11886
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14825. .14849
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16579. .16756
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/chromosome="3
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Conley, P.B. and Jantzen, H.-M.
P2u2 purinergic receptor and nucleic acid encoding the receptor
Patent: US 5871963-A 1 16-FEB-1999;
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1 455 c 381 g
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DD 123485 CATTIGGGTITIAGIAACCTIAGIACIACCAGACCTACCCCTIATAAATCCIGITAT 123544
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    123665 CITITATIACAAGAITGCICICTICCIAAAGCAGGGAAIAGGCAGGIIGCIACIGCICI 123724
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DD 123725 GCCCTTGAAAAGCCTCTCAACTTGGTCATGGCAGTGGTAATCTTCTCTGTGTTTT 123784
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DD 123845 GTATCAGTGCACCTCAGGTCGTCATCAGACTCCTTTACATTGTGACAGGCCCTTGGCCCTT 123904
                                                                                                                                                         123365 CCTCTATACCAGCATTCTCTTTTCTCAGCATAGATCGATACTTGATAATTAA 123424
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Db 123425 GTATCCTTTCCGAGAACACCTTCTGCAAAAGAAGAGTTTGCTATTTTAATCTCCTTGGC 123484
                        DD 123065 GGCATGGAATGCAACTTGCAAAAACTGGCTGCCAGGAGGCTGCCCTGGAAAAGTACTA 123124
                                                                                                                                                                                                                                                               DD 123245 CTCTGTCTCTGACTTTAGCTTTTTCTGTGCACCTCCCCATGCTGATAAGGAGTTATGCCAA 123304
                                                                                                                                                                                                                                                                                                                                          D 123305 TGGAAACTGGATATATGGAGACGTCCTCTCCATAAGCAACCGATATGTGCTTCATGCCAA 123364
                                                                                                     123125 CCTTTCCATTTTTTATGGGATTGAGTTCGTTGGGAGTCCTTGGAAATACCATTGTTGT 123184
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GCTGATTAGTAAGTTCAGACAATACTTCAAGTCCCTTACATCCTTCAGGACATGAGCTGC 1002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               705
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     882
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                883 TCTGAACAGTGCCATCAATCCCATCTTCTACTTCCTCATGGGAGACCATTACAGAGAT 942
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             406 GTACCCTTTCCGAGAACACTTTCTACAAAAGAAGGAATTTGCCATTTTAATCTCGCTGGC 465
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    645
                                                                                                                                                                                                                                        226 TICCAICICIGACITIGCITICCIGIGCACCCTICCCAICCIGAIAAAGAGITAIGCCAA 285
                                                                                                                                                                                                                                                                                                                     286 TGATAAGGGGACCTATGGAGATGTTCTCTGTATAAGCAACCGATATGTGCTTCACACAA 345
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        466 TGTCTGGGCCTTAGACCTTAGAAGTTCTACCATGCTCACTTTCATCAATTCTGTCCC 525
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GCCACTGGACAAACCCCAACGCCTGGTGGTCCTGGCGGTTGTGATCTTCTCTATACTCTT 765
                                                                                                                                                                                                                                                                                                                                                                                                  346 CCTCTACACCAGCATCCTCTTCCTTTCATTAGCATGGACCGATATCTGCTCATGAA 405
                                                                                 106 CCTCTCTGCATTTTATGCAATCGAGTTCATTTTTGGACTGCTTGGGAATGTCACTGTGGT 165
      GGCACAGAATTTATCTTGTGAGAATTGGTTGGCAACAGAGGCTATCTTGAATAAGTACTA 105
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       766 CACACCCTATCATATCATGCGCAATTTGAGGATCGCCTCACGCCTGGATAGTTG---GCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         526 AAAAGAAGAGGGCAGTAACTGCATCGACTATGCAAGTTCTGGAAAACCCTGAACACAATCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                D 123545 AACTGACAATGGCACCACTGTAATGATTTTGCAAGTTCTGGAGACCCCAACTACAACCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               823 ACAAGGATGTACACAGAAGGCCATCAAATCTATAACACACTGACACGGCCTCTGGCCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Db 124025 TGAACTCCTACTTTCATTCAGAAAAGTGAGGGGCTTGTGAAACAG 124071
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1003 TGGATGCAGGTCTTCACTCAGCCAAAA-TGAGACACTTGATAAACAG 1048
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Sequence 1 from patent US 5871963.
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KEYWORDS VERSION

SOURCE

ORGANISM

REFERENCE AUTHORS JOURNAL REFERENCE

TITLE

AUTHORS

TITLE JOURNAL

COMMENT

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63120: gap of 100 bp 63120: contig of 5148 bp in length 3220: gap of 100 bp 68999: gap of 100 bp 100
                   1339 2500: contig of 1162 bp in length 2501 2600: gap of 100 bp 100 bp 3815 3914: contig of 1214 bp in length 3815 3914: gap of 100 bp 5688: contig of 1774 bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            17563 17662: gap of 100 bp 17663 20871: contig of 3209 bp in length 20872 20971: gap of 100 bp 20972 24226: contig of 3255 bp in length
                                                                                                                                                                                                                                                              100 bp
f 1665 bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     p of 100 bp contig of 3092 bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           32035 32134: gap of 100 bp
32135 34919: contig of 2785 bp in length
34920 35019: gap of 100 bp
35020 37828: contig of 2809 bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             4224 42343: gap of 100 bp 4234 44474: contig of 2131 bp in length 44475 44829; contig of 3131 bp in length 44575 48293 contig of 3719 bp in length 48294 48393: gap of 100 bp 48394 53132: contig of 4739 bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       3568: gap of 100 bp. 158144: contig of 14576 bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                   8460 8559; gap of 100 bp 8560 11388; contig of 2829 bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             14680: gap of 100 bp
17562: contig of 2882 bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    96259 96358: gap of 100 bp 96359 103095: contig of 6737 bp in length 103096 103195; gap of 100 bp 103196 110330: contig of 7135 bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               p of 100 bp contig of 4132 bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   28: gap of 100 bp 42243: contig of 4315 bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         110331 110430; gap of 100 bp 110431 117484; contig of 7054 bp in length 117485 117584; gap of 100 bp 126560 126559; gap of 100 bp 126560 134924; contig of 8365 bp in length 12660 134924; contig of 8365 bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       134925 135024: gap of 100 bp 135025 143468: contig of 8444 bp in length 143469 143568: gap of 100 bp 143569 158144: contig of 14575 bp 1-756 bp 143569 158144: contig of 14575 bp 1-756 bp 1-756 bp 143569 158144: contig of 14575 bp 1-756 b
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57872: contig of 4640 bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                p of 100 bp contig of 5945 bp in length
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     67: gap of 100 bp
96258: contig of 5591 bp in length
                                                                                                                                                                                                                                                                                                                                                      7553: gap of 100 bp 8459: contig of 906 bp in length
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1. .1238
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/organism="Homo sapiens"
/db_xref="taxon:9606"
                                                                                                                                                                                                                                                              5689 5788: gap of 10
5789 7453: contig of
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14580; cont
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               24326; gap of 28458; cont
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90568 90667; gap of
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79150 850
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     **S Birren, B., Linton, L., Nusbaum, C., Lander, E., Allen, N., Anderson, M., Baldwin, J., Barna, N., Beckerly, R., Boguslavkiy, L., Boukhgalter, B., Brown, A., Castle, A., Collangelo, M., Collins, S., Collymore, A., Cooke, P., DeArellano, K., Dewar, K., Collymore, A., Cooke, P., DeArellano, K., Dewar, K., Collymore, A., Cooke, P., DeArellano, K., Dewar, K., Collymore, B., Cooke, P., Petreira, P., FitzHugh, W., Forrest, C., Funke, R., Cage, D., Galagan, J., Gardfug, S., Graft, G., Hagos, B., Heaford, A., Horton, L., Howland, J.C., Johnson, R., Jones, C., Rann, L., Marquis, N., McEvan, P., McGurk, A., McKernan, K., McLaughlin, J., Meldin, J., Merkwan, P., McGurk, A., McKernan, K., McLaughlin, J., Mortow, J., Naylor, J., Norman, C. H., O'Connor, T., O'Donnell, P., Stanger Thomann, N., Stojanovic, N., Subramanian, A., Talamas, J., Peterson, K., Pollara, V., Riley, R., Subramanian, A., Talamas, J., Tesfaye, S., Tirrell, A., Vassiliev, H., Vo, A., Wheeler, J., Wu, X., Wyman, D., Ye, W. J., Zimmer, A. and Zody, M. Submitted (30-NOV-1999) Whitehead Institute/MIT Center for Genome Research, 320 Charles Street, Cambridge, MA 02141, USA All repeats were identified using Repeathmasker:

Smit, A.F.A. & Green, P. (1996-1997)

http://ftp.genome.washington.edu/RM/Repeathmasker.html
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AC016455 158144 bp DNA linear HTG 04-MAY-2
Homo sapiens clone RP11-3F11, *** SEQUENCING IN PROGRESS ***, 34
1412 GGAAGCAGTATCAGTGCACTCAGTCGTCATCAACTCTTTTACATTGTGACAGGGGTT 1471
                                                                                                                                                                                              ...... Genome Center
Center: Whitehead Institute/ MIT Center for Genome Research
                                                                                                                                                                                                                                                                                                                                        936 GAGAGATGCTGATTAGTAAGTTCAGACAATACTTCAAGTCCCTTACATCCTTCAGGACAT 995
                                                                                                                                                                                                                                                                                                                                                                                        1532 GGGACATGCTGATGAATCAACTGAGACACTTCAAATCCCTTACATCTTTAGCAGAT
                                                                                                                                             876 TGGCCTTTCTGAACAGTGCCATCAATCCCATCTTCTACTTCCTCATGGGAGACCATTACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NOTE: This is a 'working draft' sequence. It currently consists of 34 contigs. The true order of the pieces is not known and their order in this sequence record is arbitrary. Gaps between the contigs are represented as runs of N, but the exact sizes of the gaps are unknown. This record will be updated with the finished sequence as soon as it is available and the accession number will be preserved.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             996 GAGCTGCTGGATGCAGGTCTTCACTCAGCCAAAA-TGAGACACTTGATAAACAG 1048
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Center code: WIBR
Web site: http://www-seq.wi.mit.edu
Contact: sequence_submissions@genome.wi.mit.edu
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Birren, B., Linton, L., Nusbaum, C. and Lander, E. Homo sapiens, clone RP11-3F11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Center project name: L2722
Center clone name: 3_F_11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1239 1338: gap of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AC016455
AC016455.2 GI:7381788
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (bases 1 to 158144)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Db 141915 AACTGACAATGCACTGTAATGATTTTGCAAGTTCTGGAGACCCCAACTACAACT 141856
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       QY 586 CATTTACAGCCTCIGCCTGACTTTGTTGGGCTTCCTAATTCCTCTCTGTGATGTGCTT 645
DD 141855 CATTTACAGCATGTGTCTAACACTGTTGGGGTTCCTTATTCTGTGATGTGTTT 141796
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DD 141795 CTTTATTACAAGATTGCTCTTCCTAAAGCAGAGAATAGGCAGGTTGCTACTGCTCT 141736
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Db 141735 GCCCCTTGAAAAGCCTCTCAACTTGGTCATCATGGCAGTGGTAATCTTCTCTGTGCTTTT 141676
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Db 141675 TACACCCTATCAGACTAGAGAATGAGAATCGCTTCAGGCCTGGGGAGTTGGAAGCA 141616
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Db 142035 GTATCCTTTCCGAGAACACCTTCTGCAAAAGAAAGAATTTGCTATTTAATCTCCTTGGC 141976
                                                                                                                                              DD 142395 GGCATGGAATGCAACTTGCAAACACTGGCTGGCAGAGGCTGCCCTGGAAAAAGTACTA 142336
                                                                                                                                                                                                                                                                                Db 142335 CCTTTCCATTTTTATGGGATTGAGTTCGTTGTGGGAGTCCTTGGAAATACCATTGTTGT 142276
                                                                                                                                                                                                                                                                                                                                                                           DD 142275 TTACGGCTACATCTTCTCTGAAGAACTGGAACAGCAGTAATATTTATCTCTTTAACCT 142216
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DD 142215 CTCTGTCTCTGACTTTAGCTTTTCTGTGCACCCTCCCCATGCTGATAAGGAGTTATGCCAA 142156
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Db 142155 IGGAAACTGGAIATATGGAGACGTGCTCTGCATAAGCAACGATATGTGCTTCATGCAA 142096
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       706 GCCACTGGACAAACCCCCAACGCCTGGTGGTCCTGTGATCTTCTCTATACTCTT 765
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           766 CACACCCTATCATATCATGCGCAATTTGAGGATCGCCTCACGCCTGGATAGTTG---GCC 822
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           823 ACAAGGATGTACACAGAAGGCCATCAAATCTATATACACACTGACACGGCCTCTGGCCTT 882
                                                                                                                                                                                                                                                                                                                                             166 GTTCGGCTACCTCTTCTCCATGAAGAACTGGAACAGCAGCAATGTCTATCTTTTAACCT 225
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       526 AAAAGAAGAGGCAGTAACTGCATGGACTATGCAAGTTCTGGAAACCCTGAACACAATCT 585
                                                                                                                                                                                                                                                                                                                                                                                                                                                          226 TICCAICTCTGACTITGCTTTCCTGTGCACCCTTCCCATCCTGATAAAGAGTTATGCCAA 285
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             286 TGATAAGGGGACCTATGGAGATGTTCTCTGTATAAGCAACCGATATGTGCTTCACACCAA 345
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             466 TGTCTGGGCCTTAGTGACCTTAGAAGTTCTACCCATGCTCACTTTCATCAATTCTGTCCC 525
                                                                                                                                                                                                                             106 CCTCTCTGCATTTTATGCAATCGAGTTCATTTTTGGACTGCTTGGGAATGTCACTGTGGT 165
                                                                                                             46 GGCACAGAATITATCTTGTGAGAATTGGTTGGCAACAGAGGCTATCTTGAATAAGTACTA 105
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38.1%; Score 588.6; DB 2; Length 158144; 75.4%; Pred. No. 5.4e122;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Db 141435 IGAACTCCTACTTTCATTCAGAGAAAAGTGAGGGGCTTGTGAAACAG 141389
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                                                            Indels
                                                               0; Mismatches 244;
                                    Best Local Similarity 75.49
Matches 759; Conservative
            Query Match
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                                        VRT 06-JAN-1998
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FLYIVVCTCLAARRICKRSFBSPRPYPYSYKRSIKMIITUTTVFAICFVPFHTTRTL
FLYSRYFQACCQTIMIINFFYKITRFLASINSCLDPILYFMAGDKYRGRLRRGAAQRP
RPVFTSLLALVSPSYDSSVVGSCCNSESRGMGTVWSRGGQ"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /db_xref="G1:2707256"
/translation="MDAPVRMFSLAPWTPTPTPWLGGNTTAAAEAKCVFNEEFKFILL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PISYCIVEVVGLPLNSWAMWIEVSRWRPWNATTTWRELAISDTLYVFSLPTLYVYY
DRNNWPFGKVFCKIVRFLFYANLYSSILFLTCISVHRYMGICHPIRSLKWVKTKHARL
                                                                                                                                                                                                                             1 (bases 1 to 1977)
Boyer,J.L., Waldo,G.L. and Harden,T.K.
Molecular cloning and expression of an avian G protein-coupled P2X
                                                                                                                                                                                                                                                                                                                                                    2 (bases 1 to 1977)
BOYET,JL., Waldo,G.L. and Harden,T.K.
Borect Submission
Submitted (29-CCT-1997) Dept.of Pharmacology, University of North
Carolina School of Medicine, CB# 7365 Mary Ellen Jones Building,
Chapel Hill, NC 27599-7365, USA
                                                                                                                                                                            Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Archosauria; Aves; Neognathae; Galliformes; Meleagrididae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              119 TATGCAATCGAGTTCATTTTGGACTGCTTGGGAATGTCACTGTGGTGTTCGGCTACCTC 178
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              515 TACGCCATCGTCTTCGTGGGTCTGCCCCTCAACTCCTGGGCCATGTGGATTTTTGTC 574
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TTCTGCATGAAGAACTGGAACAGCAGCAATGTCTATCTTTTAACCTTTCCATCTGAC 238
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TCCAGGATGAGGCCTTGGAATGCCACCACTACTTACATGTTCAACCTGGCTATCTCTGAC 634
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        239 TITIGCTITCCTGTGCACCCTTCCCATCCTGATAAAGAGTTATGCCAATG---ATAAGGGG 295
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              635 ACACTCTAGTCTTCTCCCTCCCAACCCTGGTCTACTATTATGCTGACACAACAACTGG 694
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                356 AGCATCCTCTTCCTCATTAGCATGGACCGATATCTGCTCATGAAGTACCCTTTC 415
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Meleagris gallopavo G protein coupled P2Y nucleotide receptor (tp2) mRNA, complete cds.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /product="G protein coupled P2Y nucleotide receptor"
/protein_id="AAC60339.1"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       9.6%; Score 147.6; DB 5; Length 1977; llarity 51.9%; Pred. No. 9.7e-23; Conservative 0; Mismatches 389; Indels 15;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /organism="Meleagris gallopavo"
/db.xref="taxon:9103"
/tissue_type="blood"
1. .1977
                                                                                                                                                                                                                                                                                                   Pharmacol. 52 (6), 928-934 (1997)
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                                                                                                        AF031897.1 GI:2707255
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /gene="tp2y"
374. .1498
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /gene="tp2y"
                                                                                                                                           Meleagris gallopavo.
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98086419
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Anderson, S. Barney, N. Massdam, V. Boguelavkly, L. Boukhgalter, B., Brown, A., Camarata, J., Campopiano, A., Chang, J., Chazaro, B., Chopel, Y., Colangelo, M., Collins, S., Collymore, A., Cook, A., Cooke, P., DeArellano, K., Diaz, J.S., Dodge, S., Faro, S., Ferreira, P., Fitzhugh, W., Gage, D., Galagan, J., Gardyna, S., Ginde, S., Goyette, M., Graham, L., Grand-Pierre, N., Hagos, B., Heaford, A., Horton, L., Hullme, W., Iliev, I., Johnson, R., Jones, C., Kamat, A., Karatas, A., Kells, C., LaRocque, K., Lamacares, R., Landers, T., Lehoczky, J., Levine, R., Liu, G., MacLean, C., Macdonald, P., Major, J., Marquis, N., Matthews, C., Maclarin, J., Macdonald, P., Major, J., Marquis, N., Maldrim, J., Maches, L., Mihova, T., Mlenga, V., Murphy, T., Naylor, J., Nguyen, C., Norman, C., Seaman, S., Severti, M., Rieback, M., Riley, R., Rise, C., Rogov, P., Seaman, S., Severti, M., Roy, A., Santos, R., Schupback, R., Schauber, S., Schupback, R., Stauss, N., Subramanian, A., Travis, J., Tergilio, J., Vassiliev, H.,
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Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1175 GTGCCCTTCCACATCACCCGGACCCTCTACTACACCTCTCGC---TACTTCCAAGCTGAT 1231
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1055 CTGATGGCCAAGAGGCTCTGCAAGCGCAGCTTCCCCAGCCCCCAGCCCCGGGGCCTCC 1114
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   995 TCCTCCATCATGGCGCTCCTCTTCGGTATTCCCTTCCTGGTGATTGTTGTGTGCTACTGC 1054
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416 CGAGAACACTITCTACAAAAGAAGGAATITGCCATITITAATCTCGCTGGCTGTCTGGGCC 475
                                              476 TTAGTGACCTTAGAAGTTCTACCCATGCTCACTTTCATCAATTCTGTCCCAAAAGAAGAG 535
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                                                                                                                                                                                        536 GGCAGTAACTGCATCGACTATGÇAAGTTCTGGAAACCCTGAACAATCTCATTTACAGC
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                                                                                                                                                                                                                                                                                                                                                                  935 AGCACCCTTTGCCATGACACCACCAAACCTGAGGAGTTCGACCACTACGTGCACTACAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                           596 CICTGCCTGACTITGTTGGGCTTCCTAATTCCTCTCTGTGATGTGCTTCTTCTACTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      656 AAGATGGTAGTCTTCTTAAAGAGGAGGAGC:-----CAGCAGCAAGCAACTGCCCTGC
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Mus musculus clone RP23-109K24, LOW-PASS SEQUENCE SAMPLING
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Birren, B., Linton, L., Nusbaum, C. and Lander, E.
Mus musculus, clone RP23-109K24
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AC101335
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100 bp 726 bp in length

in length

TITLE JOURNAL COMMENT

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i couc.

i contig of 731 bp 1u -

gap of 100 bp

96: contig of 726 bp in length

721 bp in length
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40726: contig of 709 bp in length
326: gap of 100 bp
41544: contig of 718 bp in length
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46500: contig of 727 bp in length
600: gap of 100 bp
47316: contig of 716 bp in length
19389: contig of 713 bp in length 1898; gap of 100 bp 100 bp 20233: contig of 744 bp in length 333; gap of 100 bp 21062: contig of 729 bp in length
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43168: contig of 736 bp in length
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p of 100 bp
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contig of 703 bp
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21865: contig of 703 bp
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contig of 729 bp
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23520: contig of
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47316: con
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37439: con
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38270: con
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39917: con
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45673: con
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                                                                            Submitted (23-NOV-2001) Whitehead Institute/MIT Center for Genome Research, 320 Charles Street, Cambridge, MA 02141, USA All repeats were identified using RepeatMasker:
Smit, A.F.A. & Green, P. (1996-1997) http://ftp.genome.washington.edu/RM/RepeatMasker.html
                                                                                                                                                                                                          Center: Whitehead Institute/ MIT Center for Genome Research
            Viel,R., Vo.A., Wilson,B., Wu,X., Wyman,D., Ye,W.J., Young,G.,
Zainoun,J., Zembek,L., Zimmer,A. and Zody,M.
Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                   NOTE: This record contains 85 individual sequencing reads that have not been assembled into contigs. Runs of N are used to separate the reads and the order in which they appear is completely arbitrary. Low-pass sequence sampling is useful for identifying clones that may be gene-rich and allows overlap relationships among clones to be deduced. However, it should not be assumed that this clone will be sequenced to completeion. In the event that this clone who continued to complete the complete that the contract of the complete continued that the continued that the contract is made to complete the complete contract that the contract is made to complete the contract that the contract is made to complete the contract that the contract is made to complete the contract that the contract is the contract that the contract the contract the contract that the contract the contract the contract the contract that the contract the co
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Contact: sequence_submissions@genome.wi.mit.edu
------ Project Information
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45: gap of 100 bp
14669: contig of 724 bp in length
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17914: contig of 725 bp in length
18014: gap of 100 bp
18576: contig of 562 bp in length
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f 730 bp in length
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f 720 bp in length
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16293: contig of 711 bp in length
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contig of 715 bp in length
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Center clone name: 109_K_24
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17190 17914: conti
17915 18014: gap of
18015 18576: conti
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17089: cont
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11386: con
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8933: cor
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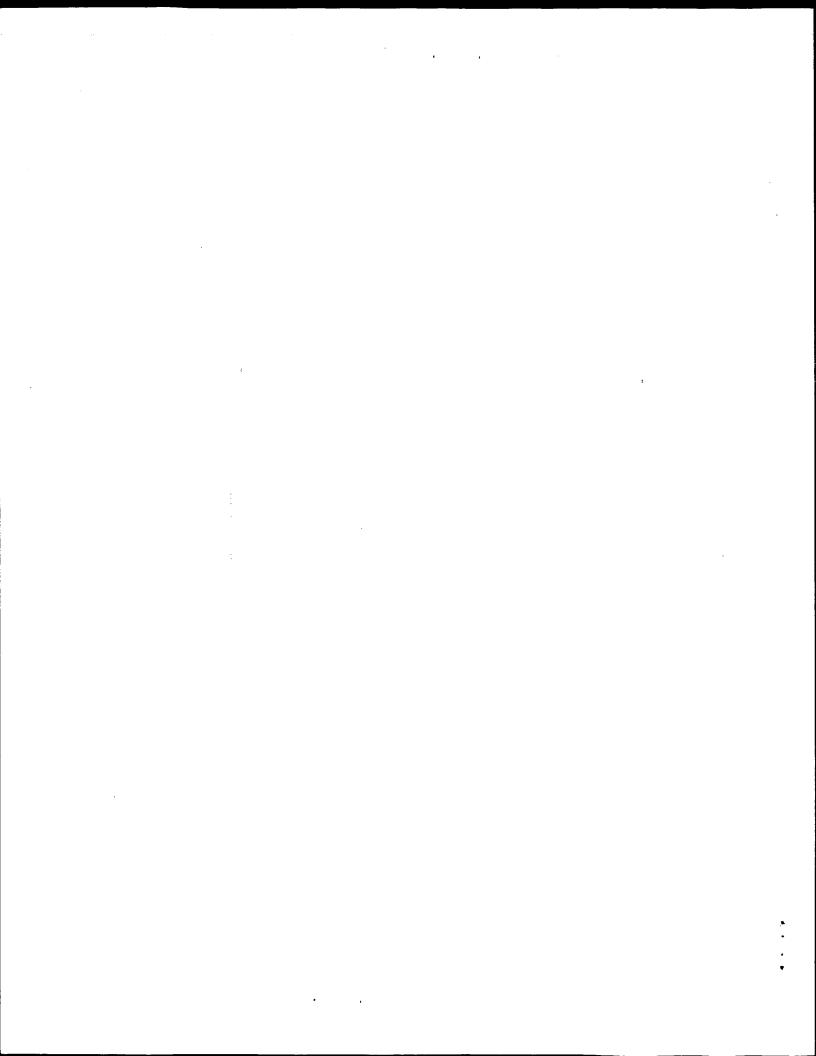
1721 bp ... 100 bp 709 bp in length

100 bp f 688 bp in length

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Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
1 (bases 1 to 1014)
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contig of 746 bp in length
up of 100 bp
contig of 719 bp in length
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55483: contig of 703 bp in length
13: gap of 100 bp
56316: contig of 733 bp in length
16: gap of 100 bp
                                 in length
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Pred. No. 5.1e-18;
0; Mismatches 369;
48933: contig of 714 bp ir
449033: gap of 100 bp
49728: contig of 695 bp ir
949828: gap of 100 bp
50547: contig of 719 bp in
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52182: contig of 717 bp
52282: gap of 100 bp
53028: contig of 746 bp
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Sequence 27 from Patent W00136471.
AX148186
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/db_xref="taxon:9606"
263 c 189 q 304
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Location/Qualifiers
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                        537 GCAGTAACTGCATCGACTATGCAAGTTCTGGAAACCCTGAACACAACATTTACAGCC
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GenCore version 5.1.3
Copyright (c) 1993 - 2003 Compugen Ltd.
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nucleic search, using sw model OM nucleic -

April 2, 2003, 10:58:41; Search time 393 Seconds Run on:

(without alignments)
8841.815 Million cell updates/sec

US-09-891-138A-1 Title: Perfect-score:-

1 gctcctggcagagttttctg ednence:

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2185239 seqs, 1125999159 residues Searched:

IDENTITY\_NUC Gapop 10.0 , Gapext 1.0

Scoring table:

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Minimum DB seq length: 0 Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

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## ALIGNMENTS

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ABK12957 standard; DNA; 1543 BP
                                                                                09-APR-2002 (first entry)
                                                  ABK12957;
ABK12957
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RESULT 1

DNA sequence of mouse G-protein coupled receptor TGR18 gene.

Mouse; G-protein coupled; receptor; GPCR; TGR18; kidney disease; signal transduction modulator; cerebral cavernous malformation; hyperlipidemia; obesity; dyslexia; cardiac myxoma; renal failure; nephritis; hypertension; liver disease; cirrhosis; blood disorder; spleen-associated disorder; immune disorder; gene; ds.

Mus sp.

/product= "Mouse G-protein coupled receptor TGR18" Location/Qualifiers /\*tag= Key

WO200200719-A2

03-JAN-2002.

25-JUN-2001; 2001WO-US20363. 

23-JUN-2000; 2000US-213461P.

(TULA-) TULARIK INC.

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The present invention relates to a new G-protein coupled receptor (GPCR) colypeptide comprising greater than 70% amino acid sequence identity to the amino acid sequence of human GPCRs TGR21, TGR130.2, Che amino acid sequence identity to mouse TGR130.2, human TGR213 or TGR92, 80% amino acid sequence identity to mouse TGR180.2, cor 90% amino acid sequence identity to mouse TGR180.2, cor 90% amino acid sequence identity to human novel edg receptor protein, as defined in the specification. The GPCR covalently linked to a solid phase is useful for identifiance of the modulates signal cransduction. The identifiance of the modulates signal cransduction. The identified compounds are useful for treating transduction. The identifial compounds are useful for treating conseity, dyslexia and cardiac myxoma. The molecules of the invention are useful for diseases uch as renal failure, nephriliphedmia, or syndrome, asymptomatic urinary abnormalities, renal tubule defects, hypertension and nephrolithasis, liver-related disease or condition of hypertension and nephrolithasis, liver-related disease or condition of the invention is useful to treat or prevent any of the mouse GPCR TGR18 protein of the invention. This sequence encodes one of seaves. New G-protein coupled receptor polypeptides, useful for identifying modulators of signal transduction for treating kidney disease, hyperlipidemia, obesity, dyslexia and cardiac myxoma ö Cutler Claim 18; Page 58; 78pp; English. Zhao J, Chen J, WPI; 2002-147880/19. P-PSDB; AAU74904. Lin DC, 

Sequence 1543 BP; 438 A; 352 C; 293 G; 460 T; 0 other;

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480 241 TGCTTTCCTGTGCACCCTTCCCATCCTGATAAAGAGTTATGCCAATGATAAGGGGACCTA 300 241 recrirecterecarcerrecterresandagerrareceargarangegaetra 300 301 recagaretrereraraseaacedareserreseaceaacerereacecereracaceae CCTCTTCCTCACTTTCATTAGCATGGACCGATATCTGCTCATGAAGTACCCTTTCCGAGA 420 TTGTGAGAATTGGTTGGCAACAGAGGCTATCTTGAATAAGTACTACCTCTCTGCATTTTA 120 121 IGCAATCGAGTTCATTTTTGGACTGCTTGGGAATGTCACTGTGGTGTTCGGCTACCTCTT 180 TGGAGATGTTCTCTGTATAAGCAACCGATATGTGCTTCACACCAACCTCTACACCAGCAT 360 Gaps 1 GCTCCTGGCAGAGTTTTCTGTCGAGACAGAAGCCGACAGCAGAATGGCACAGAATTTATC 60 121 TGCAATCGAGTTCATTTTTGGACTGCTTGGGAATGTCACTGTGGGTGTTCGGCTACCTCTT 181 CTGCATGAAGAACTGGAACAGCAATGTCTATCTTTTAACCTTTCCATCTCTGACTT 100.0%; Score 1543; DB 24; Length 1543; 100.0%; Pred. No. 0; tive 0; Mismatches 0; Indels 0; Conservative Similarity Best Local Sin Matches 1543; Query Match 181 301 361 421 δ g QQ QQ g ö 엄 ò g õ g ò ŏ ò

421

1441 TITATGTGAAAAATGAATATAATTCAATGTACAACATTAGATTTTCTATTTGAAAATTAT 1500 1020 1081 ACCATTCTAGGCTTTAGCTTTCCACCACCCCCAGGGCTGGAGTACAAGCTG 1140 1081 ACCATTICTAGGCTTTAGCTTTCCACCATCCTCCAACCCCCAGGGCTGGAGTACAAGCTG 1140 1141 GGTCCACATGAATCAGAAGGCAGCTCTCTGTTCTGATTTTAGGTTATACCCAGAGTATGG 1200 aaaaataaggcatgagaaagcattgacatcttcacttaagaactgaacaaaagagaaca 1260 AATATTGTCAATGTTTGGACACTTAGGATCTGAAAATCTTGGAAAATTTTAAGACCTCTTTT 1320 1381 IGGICAGGICGAIAAGCGIGTITCIGAAATAGICTIAITITITATICTIGIAAIATTAAAA 1440 1021 CAGCCAAAATGAGACACTTGATAAACAGTGCTGTGCAGTTGAGTTTTAACTAAGTAAACC 1080 780 840 900 780 720 1381 IGGICAGGICGATAAGCGIGTITCIGAAAIAGICITATITITIATICITGIAAIAITAAAA 901 TCCCATCTTCTACTTCCTCATGGGAGACCATTACAGAGAGATGCTGATTAGTAAGTTCAG CCAACGCCTGGTGGTCCTGGCGGTTGTGTTCTCTATACTCTTCACACCCTATCATAT 841 GGCCATCAAATCTATATACACACTGACACGGCCTCTGGGCCTTTCTGAACAGTGCCATCAA 961 ACAATACTICAAGICCCTIACAICCTICAGGACAIGAGGIGGIGGAIGCAGGICTICACI GGTAGTCTTCTTAAAGAGGAGGCCAGCAAGCAAGCAACTGCCCTGCCACTGGACAAACC CATGCGCAATTTGAGGATCGCCTCACGCCTGGATAGTTGGCCACAAGGATGTACACAGAA GACCTTAGAAGTTCTACCCATGCTCACTTTCATCAATTCTGTCCCAAAAGAAGAGGGCAG 661 GCTAGTCTTCTTAAAGAGGAGGCAGCAGCAAGCAAGCAACTGCCCTGCCACTGGACAAACC COAACGCCTGGTGGTCGTCGGCGGTTGTGATCTTCTCTATACTCTTCACACCCCTATCATAT 541 TAACTGCATCGACTATGCAAGTTCTGGAAACCCTGAACACAATCTCATTTACAGCCTCTG 601 CCTGACTTGTTGGGCTTCCTAATTCCTCTCTGTGATGTGCTTCTTCTACTACAAGAT 1501 ATTICITGAAAAATAACTGCTGTGCCTAAATAAATCAATATA 1543 1501 ATTICTIGAAAAAATAACTGCIGIGCCTAAATAAATGAATATA 1543 1261 1201 721 721 481 601 199 a g g ŏλ g ò g δ a ò g q ð g δŏ В ò g ò g δ ò g g ò δλ g ŏλ ò ò

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orphan G protein-coupled receptor (GPCR), expressed in kidney and thyroid. The hCHNIO CDNA was identified using the human EST (expressed sequence tag) 1365839 as a probe. The orphan GPCR of the invention, like all GPCRs has seven transmembrane alpha helices with an extracellular ligands has yet been identified for the proteins of the invention. The ligands has yet been identified for the proteins of the invention. The orphan GPCRs may be used in the identification of their endogenous ligands, and to screen potential GPCR agonists and antagonists for use as pharmaceutical agents. The proteins may also be used in the study of
                                                                                                                          Human; orphan G protein-coupled receptor; GPCR; hCHN10; drug screening;
transmembrane receptor; expressed sequence tag; EST; signal cascade; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Novel human orphan G protein-coupled receptors and the encoding cDNAs for use in the identification of G protein-coupled receptor agonists .
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              The present sequence is a cDNA encoding hCHN10, an endogenous human
                                                                                                                                                                                                                                         /note≈ "Human orphan G protein-coupled receptor"
                                                                                                  Human orphan G protein-coupled receptor hCHN10 cDNA.
                                                                                                                                                                                         Location/Qualifiers
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                                                                                                                                                                                                                             "hchw10"
                       AAD01135 standard; cDNA; 1005 BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Claim 69; Page 86; 102pp; English.
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99US-0136439.
99US-0136567.
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                                                                       02-NOV-2000 (first entry)
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28-MAY-1999;
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RESULT 2
AAD01135
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GPCR-mediated signalling cascades, and to elucidate their precise role in normal and diseased human conditions. Nucleic acid encoding human orphan
                               GPCRs may be used for tissue localisation expression analysis to provide information about their function in healthy and pathological states.
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                                                                                                                                                            0; Mismatches 241; Indels
                                                                                    Sequence 1005 BP; 248 A; 236 C; 196 G; 325 T; 0 other;
                                                                                                                                           Pred. No. 1e-139;
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  908 GGGACATGCTGATGAATCAACTGAGACACAACTTCAAATCCCTTACATCCTTTAGCAGAT 967
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Non-endogenous, human G protein-coupled receptors for screening receptor, inverse or partial agonists useful as therapeutic agents
                                                                                                                                            Human G protein coupled receptor hCHN10 encoding cDNA SEQ ID NO:37.
                                                                                                                                                               Human; G protein coupled receptor; GPCR; transmembrane receptor;
identification; agonist; screening; therapeutic; pharmaceutical;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Dang HT;
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                     996 GAGCTGCTGGATGCAGGTCTTCACTCAGCCAAAA 1029
                               Lowitz K,
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                                                                                        AAA46036 standard; cDNA; 1005 BP
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                                                                                                                              (first entry)
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28-MAY-1999
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                                                                                                                                                                                      mutant; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Behan DP,
                                                                                                           AAA46036;
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                                                                      RESULT 3
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inverse agonists or partial agonists for use as pharmaceutical agents. AAA46017 to AAA46126 and AAB02825 to AAB02859 represent sequences used in the exemplification of the present invention.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        339 ACACCAACCTCTACACCAGCATCCTCTTCCTCACTTAGCATGGACCGATATCTGC 398
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TCATGAAGTACCCTTTCCGAGAACACTTTCTACAAAAGAAGGAATTTGCCATTTTAATCT 458
                                                                                                                                                                                                                                                                                                                                                   187
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            99 AGTACTACCTCTCTGCATTTTATGCAATCGAGTTCATTTTTGGACTGCTTGGGAATGTCA 158
                                                                                                                                                                                                                                                                           68 ACTACCTTTCCATTTTTTATGGGATTGAGTTCGTTGTGGGAGTCCTTGGAAATACCA 127
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         876 TGGCCTTTCTGAACAGTGCCATCAATCCCATCTTCTACTTCCTCTGGGAGACCATTACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             519 CIGICCCAAAAGAAGAGGGCAGTAACTGCATCGACTATGCAAGTTCTGGAAACCCTGAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            579 ACAAICTCATITACAGCCTCTGCCTGACTTTGTTGGGCTTCCTAATTCCTCTCTGTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            699 CIGCCCIGCCACIGGACAAACCCCAACGCCIGGIGGICCIGGCGGIIGIGAICIICICIA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 759 TACTCTTCACACCCTATCATATCATGCGCAATTTGAGGATCGCCTCACGCCTGGATAGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  788 GGAAGCAGTATCAGTGCACTCAGGTCGTCATCAACTCCTTTTACATTGTGACACGGCCTT
                                                                                                                                                                                                                                                                                                                                    39 GCAGAATGGCACAGAATTTATCTTGTGAGAATTGGTTGGCAACAGAGGCTATCTTGAATA
                                                                                                                                                                                              159 CTGTGGTGTTCGCCTACCTCTTCTGCATGAAGAACTGGAACAGCAGCAATGTCTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                      279 ATGCCAATGATAAGGGACCTATGGAGATGTTCTCTGTATAAGCAACCGATATGTGCTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   219 ITAACCITTCCATCTCTGACTTTGCTTTCCTGTGCACCCTTCCCATCCTGATAAAGAGTT
                                                                                                      38.4%; Score 592.4; DB 21; Length 1005; 75.5%; Pred. No. 1e-139;
                                                                                                                                           0; Mismatches 241; Indels
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220 TIGITGITTACGGCIACATCTTCTCTGAAGAACTGGAACAGCAGTAATATTATCTCT

159 CTGTGGTGTTCGGCTACCTCTTCTGCATGAAGAACTGGAACAGCAGCAATGTCTATCTTT

279 ATGCCAATGATAAGGGGACCTATGGAGATGTTCTCTGTATAAGCAACCGATATGTGCTTC

219 TTAACCTTTCCATCTCTGACTTTGCTTTCCTGTGCACCCTTCCCATCCTGATAAAGAGTT

99 AGTACTACCTCTCTGCATTTTATGCAATCGAGTTCATTTTTGGACTGCTTGGGAATGTCA 158

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The invention relates to novel genes (ABL89449-ABL90853) and proteins (ABB89040-ABB90444) useful for preventing, treating or ameliorating medical conditions e.g. by protein or gene therapy. The genes are isolated from a range of human tissues disclosed in the specification. The nucleic acids, proteins, antibodies and (ant)agonists are useful in the diagnosis, treatment and prevention of: (a) cancer, e.g. breast and ovarian cancer and other cancers of the adrenal gland, bone, bone marrow, breast, gastrointestinal tract, liver, lung, or urogenital; (b) immune disorders e.g. Addison's disease, allergies, autoimmune thyroiditis, diabetes mellitus, Crohn's disease, multiple sclerosis, rheumatoid arthritis and ulcerative colitis; (c) cardiovascular disorders such as myocardial ischaemias; (d) wound healing; (e) neurological diseases e.g. cerebral anoxia and and parasitic infections.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Cytostatic; immunosuppressive; nootropic; neuroprotective; antiviral; antialergic; hepatotropic; antidiabetic; antiinflammatory; antiulcer; vulnerary; anticonvulsant; antibacterial; antifungal; antiparastic; cardiant; gene therapy; cancer; immune disorder; cardiovascular disorder; neurological disease; infection; human; secreted protein; gene; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Novel 1405 isolated polypeptides, useful for diagnosis, treatment and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Note: The sequence data for this patent did not form part of the printed specification, but was obtained in electronic format directly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  prevention of neural, immune system, muscular, reproductive, gastrointestinal, pulmonary, cardiovascular, renal and proliferative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Claim 4; SEQ ID NO 1352; 2081pp + Sequence Listing; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 1436 BP; 397 A; 309 C; 289 G; 441 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           from WIPO at ftp.wipo.int/pub/published_pct_sequences.
996 GAGCTGCTGGATGCAGGTCTTCACTCAGCCAAAA 1029
                                                                             968 GGCTCATGAACTCCTACTTTCATTCAGAGAAA 1001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Human polynucleotide SEQ ID NO 1352.
                                                                                                                                                                                                                                                                                  ABL90790 standard; cDNA; 1436 BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (HUMA-) HUMAN GENOME SCI INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 18-MAY-2001; 2001WO-US16450.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                 24-MAY-2002 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Birse CE, Rosen CA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WPI; 2002-122018/16.
P-PSDB; ABB90381.
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ABL90790
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459 CGCTGGCTGTCTGGGCCTTAGTGACCTTAGAAGTTCTACCCATGCTCACTTTCATCAATT 518

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399 TCATGAAGTACCCTTTCCGAGAACACTTTCTACAAAAGAAGGAATTTGCCATTTTAATCT

340 ATGCCAATGGAAACTGGATATATGGAGACGTGCTCTGCATAAGCAACCGATATGTGCTTC 339 ACACCAACCTCTACACCAGCATCCTCTTCCTTCATTAGCATGGACCGATATCTGC 519 CTGTCCCAAAAGAAGAGGGCAGTAACTGCATCGACTATGCAAGTTCTGGAAACCCTGAAC 578

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579 ACAATCTCATTTACAGCCTCTGCCTGACTTTGTTGGGCTTCCTAATTCCTCTCTGTGA

699 CTGCCCTGCCACTGGACAAACCCCAACGCCTGGTGGTCCTGGCGGTTGTGATCTTCTCTA 758 TACTUTTCACACCCTATCATATCATGCGCAATTTGAGGATCGCCTCACGCCTGGATAGTT 818

519

399

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820 TGCTTTTTACACCCTATCACGTCATGCGGAATGTGAGGATCGCTTCACGCCTGGGGAGTT 879
                                                    G---GCCACAAGGAIGTACACAGAAGGCCATCAAATCTATATACACACTGACACGGCCTC 875
                                                                                      880 GGAAGCAGTATCAGTGCACTCAGGTCGTCAACTCCTTTTACATTGTGACACGGCCTT 939
                                                                                                                          876 IGGCCTTTCTGAACAGTGCCATCAATCCCATCTTCTACTTCCTCATGGGAGACCATTACA 935
                                                                                                                                           936 GAGAGATGCTGATTAGTAAGTTCAGACAATACTTCAAGTCCCTTACATCCTTCAGGACAT
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                                                                                                                                                                                                                                                                                                                                                      38.4%; Score 592.4; DB 24; Length 1436; 75.3%; Pred. No. 1.2e-139; tive 0; Mismatches 246; Indels 4;
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AAD24958;

Best Local Similarity 75.3 Matches 764; Conservative

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Query Match

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The invention relates to isolated human G-protein coupled receptor (CCREC) polypeptides and their biologically active fragments. GCREC and protein is useful in treating a disease or condition associated with an increase or decrease in expression of functional GCREC. The GCREC's are useful in the diagnosis, treatment and prevention of cell proliferative disorders (cancer, leukaemia, melanoma); neurological disorders (stroke, epilepsy, Parkinson's disease, dementia, Alzheimer's disease); autoimmune inflammatory disorder (thyroiditis, haemolytic anaemia, AIDS, multiple sclerosis); cardiovascular disorder (atherosclerosis, angina pectoris), metabolic disorder (ulcer, cholelthiasis, gastroenteritis), metabolic disorder (lacer, cholelthiasis, gastroenteritis), metabolic disorders (diabetes); viral infections (herpes virus) and in the assessment of the effects of exogenous compounds on the expression of the nucleic acid and amino acid sequences. The present sequence is
                                                               Human; G-protein coupled receptor-3; GCREC-3; therapy; cancer; stroke; cell proliferative disorder; neurological; epilepsy; Parkinson's disease; Alzheimer's disease; inflammation; thyroiditis; haemolytic anamia; AIDS; Acquired Immune Deficiency Syndrome; dementia; noctropic; cholelithiasis; multiple sclerosis; atherosclerosis; angina pectoris; gastroenteritis; diabetes; ulcer; viral infection; immunosuppressive; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Isolated human G-protein coupled receptor polypeptides and the use of these sequences in the diagnosis, treatment and prevention of diseases and in the assessment of exogenous compounds on the expression of the
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                H, Khan FA, Patterson C, Lu DAM
Graul R, Yao MG, Yang J, Ramku
andez R, Walsh RT, Borowsky ML,
                                Human G-protein coupled receptor-3 (GCREC-3) cDNA.
                                                                                                                                                                                                                                                                                          /product= "Human GCREC-3 protein"
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Patterson C,
                                                                                                                                                                                                                                         Location/Qualifiers
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2000US-215209P.
2000US-216595P.
2000US-218936P.
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Griffin JA, iv.
T'! Y, Walla NK, Grau.
''' Y, Hernandez R, F
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12-MAR-2002 (first entry)
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                                                                                                                                                                                                                                                                                                                                    WO200198351-A2
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21-JUL-2000;
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                                                                                                                                                                                                         Homo sapiens
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1164
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AGTACTACCICTCTGCATTTTATGCAATCGAGTTCATTTTTGGACTGCTTGGGAATGTCA 158
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                                                                                                                                                                                   339 ACACCAACCICTACACCAGCATCCTCTTCCTTTCATTAGCATGGACCGATATCTGC
                     AGTACTACCTTTCCATTTTTATGGGATTGAGTTCGTTGTGGGAGTCCTTGGAAATACCA
                                             CIGIGGIGITCGGCTACCTCTTCTGCATGAAGAACTGGAACAGCAGCAATGTCTTT
                                                         219 ITAACCITICCAICICIGACITIGCITICCIGIGCACCCTICCCAICCTGAIAAAGAGII
                                                                                                     279 ATGCCAATGATAAGGGGACCTATGGAGATGTTCTCTGTATAAGCAACCGATATGTGCTTC
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Au-Young J;

Kallick DA;

Gandhi AR, Kallick Dł Lu DAM, Tribouley CM; Ramkumar J, Au-Yo ML, Thornton M, , ,

Gaps

4;

DB 24; Length 1542;

205 GGATCATGGCATGGAATGCAACTTGCAAAACTGGCTGGCAGCAGAGGTGCCCTGGAAA 264

GCAGAATGGCACAGAATTTATCTTGTGAGAATTGGTTGGCAACAGAGGCTATCTTGAATA 98

39

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Query Match
38.4%; Score 592.4; DB 24; Length
Best Local Similarity 75.3%; Pred. No. 1.2e.139;
Matches 764; Conservative 0; Mismatches 246; Indels

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5
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ATGCCAATGATAAGGGGACCTATGGAGATGTTCTCTGTATAAGCAACCGATATGTGCTTC 338
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AGTACTACCTCTCTGCATTTTATGCAATCGAGTTCATTTTTGGACTGCTTGGGAATGTCA 158
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AGTACTACCTTTCCATTTTTATGGGATTGAGTTCGTTGTGGGAGTCCTTGGAAATACCA 751
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ACACCAACCTCTACACCAGCATCCTCTTCCTCACTTTCATTAGCATGGACCGATATCTGC 398
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   39 GCAGAATGGCACAGAATTTATCTTGTGAGAATTGGTTGGCAACAGAGGCTATCTTGAATA 98
                                                                                                                                                                                                                                                                                                                                                                                                                                                        A cDNA clone (AAT71900) codes for a novel human purinergic receptor subtype, designated P2U2 receptor (AAW19854), that is abundantly expressed in kidney and in many cell lines of megakaryocytic or erythroleukaemic origin and which is activated by ATP, UDP, UTP and UDP. The clone was obtcd. by amplifying DAMI (ATCC CRL 9792) cell regions of mouse P2U and chicken P2V1 receptors, and use of the PCR product to screen the DAMI cDNA library to isolate the full-length P2U2 receptor polypeptides and as probes.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              4; Gaps
                                                                                                                                                                                                                                                                                                                                                                           New isolated purinergic receptor sub-type - used to develop products for diagnosis and therapy, e.g. for screening for agonists and antagonists which can modulate activation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TTAACCTTTCCATCTCTGACTTTGCTTTCCTGTGCACCCTTCCCATCCTGATAAAGAGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DB 18; Length 1996;
                                        P2U2 receptor; purinergic receptor; diagnosis; therapy; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 589.2; DB 18; Length
Pred. No. 8.9e-139;
0; Mismatches 248; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 1996 BP; 513 A; 454 C; 381 G; 647 T; 1 other;
                Human purinergic receptor P2U2 cDNA
                                                                                                 Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                 Claim 3; Fig 1A-C; 36pp; English.
                                                                                                                                                                                                                                                                               (CORT-) COR THERAPEUTICS INC
                                                                                                                                                                                                                                                      95us-0006782,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match 38.2%;
Best Local Similarity 75.1%;
Matches 762; Conservative
                                                                                                                                                                                                             96WO-US18175.
                                                                                                                                                                                                                                         95US-0559524
                                                                                                             625..1629
/*tag= a
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P-PSDB; AAW19854.
                                                                      Homo sapiens
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                                                                                                                                                      WO9720045-A2
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                                                                                                                                                                                  05-JUN-1997
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1112 CTGTTATAACTGACAATGGCACCACCTGTAATGATTTTGCAAGTTCTGGAGACCCCAACT 1171
                                                                                                                                       399 TCATGAAGTACCCTTTCCGAGAACACTTTCTACAAAAGAAGGAATTTGCCATTTTAATCT 458
                                        CGCTGGCTGTCTGGGCCTTAGTGACCTTAGAAGTTCTACCCATGCTCACTTTCATCAATT 518
                                                                                 519 CTGTCCCAAAAGAAGAGGGCCAGTAACTGCATCGACTATGCAAGTTCTGGAAACCCTGAAC 578
                                                                                                                             579 ACAATCTCATTTACAGCCTCTGCCTGACTTTGTTGGGGCTTCCTAATTCCTCTCTGTGA 638
                                                                                                                                                                       CTGCCCTGCCACTGGACAAACCCCAACGCCTGGTGGTCCTGGCGGTTGTGATCTTCTCTA 758
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                                                                                                                                                                                                                                                                                                                                                                                                   819 G---GCCACAAGGATGTACACAGAAGGCCATCAAAATCTATATACACACTGACACGGCCTC
                                                                                                                                                                                                                                                                                                                                             876 TGGCCTTTCTGAACAGTGCCATCAATCCCATCTTCTACTTCCTCATGGGAGACCATTACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ATP receptor; G-protein coupled receptor; agonist; antagonist; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                GAGCTGCTGGATGCAGGTCTTCACTCAGCCAAAA-TGAGACACTTGATAAACAG 1048
                                                                                                                                                                                                                                                                                                                                                                                                                                           /note- "binding site for primer used to amplify cDNA for baculovirus expression"
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aa:Ser)
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/transl_except= (pos:725..727,
/transl_except= (pos:764..766,
/transl_except= (pos:820..822,
/note= "Xaa = unknown"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        complement (92..100)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
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                                                                                                                                                                                                                                                                                                                                             Isolated human ATP receptor - agonists and antagonists of which are useful in treatment of, e.g. asthma, hypertension, arterial thrombosis and psychotic and neurological disorders
                                                                                                                                                                                                                                                                                                                                                                                                               A cDNA clone (AAT75146) codes for human ATP receptor (AAW22732), a polypeptide structurally related to the g protein-coupled receptor family. It was alsocvered in a human placenta cDNA library. CDNA encoding the mature receptor, deposited as ATCC 97333, can be expressed in bacterial (e.g. E. coli), mammalian (e.g. COS) or lisect (e.g. Sf9) host cells and used to screen for agonists and antagonists useful in the treatment of a variety of disorders. It can also be used to identify a mutation in an ATP receptor gene and thus to dispasses, for susceptibility to diseases,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          159 CTGTGGTGTTCGGCTACCTCTTCTGCATGAAGAACTGGAACAGCAGCAATGTCTATTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       219 TTAACCTTTCCATCTCTGACTTTGCTTTCCTGTGCACCCTTCCCATCCTGATAAAGAGTT
/note= "binding site for primers used to amplify cDNA for bacterial or COS expression" 1076..1095
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                38.1%; Score 587.2; DB 18; Length 1428; Similarity 75.0%; Pred. No. 2.5e-138;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          4;
                                                                                                                                       //octe- "binding site for primer used to amplify
cDNA for baculovirus expression"
                                     /*tag= d
/note= "binding site for primer used to amplify
cDNA for COS expression"
1079..1096
                                                                                           /note- "binding site for primer used to amplify cDNA for bacterial expression"
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         related to ATP receptor underexpression.
                                                                                                                                                                                                                                                                                                                                                                                               Claim 7; Fig 1A-C; 53pp; English
                                                                                                                                                                                                                                                                    (HUMA-) HUMAN GENOME SCI INC
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                                                                                    *tag=
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                                                                                                                                                                                                                        11-JAN-1996;
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                                                                                                                                                                            W09724929-A1
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Human; secreted protein; diagnosis; immunosuppressive; antiarthritic; antirheumatic; antiproliferative; cytostatic; cardiant; vasotropic; cerebroprotective; nootropic; neuroprotective; antibacterial; virucide; fungicide; opthhalmological; vulnerary; gene therapy; autoimmune disease; hyperproliferative disorder; cardiovascular disorder; angiogenesis; cerebrovascular disorder; nervous system disorder; infection; skin aging; ocular disorder; wound healing; food additive; preservative; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               936 GAGAGATGCTGATTAGTAAGTTCAGACAATACTTCAAGTCCCTTACATCCTTCAGGACAT 995
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                                                                                                                                                                                                                                                                                        CTGTCCCAAAAGAAGAGGGCAGTAACTGCATCGACTATGCAAGTTCTGGAAACCCTGAAC 578
                                                                                                                                                                                                                                                                                                                                                                                         638
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                         459 CGCTGGCTGTCTGGGCCTTAGTGACCTTAGAAGTTCTACCATGCTCACTTTCATCAATT
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                                                                                                                       519 CCTIGGCCATGIGGGTTTTAGTAACCTTAGAGTTACTACCCATACTTCCCCTTATAAATC
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Human secreted protein gene 37 SEQ ID NO:47.
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Cybostatic; cardiant; vasotropic; cerebroprotective; nootropic; neuroprotective; antibacterial; virucide; fungicide; ophthalmological; and vulnerary. The polynucleotides and polypeptides can be used to prevent, treat or ameliorate a medical condition in e.g. humans, mice, rabbits, goats, horses, cats, dogs, chickens or sheep. They are also used in diagnosing a pathological condition or susceptibility to a pathological condition. Disorders which are diagnosed or treated include autoimmune diseases, hyperproliferative disorders; cardiovascular disorders, erebrovascular disorders; andiogenesis, nervous system disorders. The polypeptides can also be used to aid wound healing and clisorders. The polypeptides can also be used to aid wound healing and clisorders. The polypeptides can also be used to aid wound healing and continuation croams before transplantation, for supporting cell culture of polypeptides can also be used as a food additive or preservative to polypeptides can also be used as a food additive or preservative to increase or decrease storage capabilities, fat content, lipid, protein, carbohydrate, vitamins, minerals, cofactors and other nutritional complete the examnlification of the examnli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        The polynucleotide sequences given in AAC81086 to AAC81134 encode the human secreted proteins given in AAB45308 to AAB45356. AAB45337 to AAB45384 represent human secreted polypeptide sequences and proteins homologous to them, which are given in the exemplification of the present invention. Human secreted proteins have activities based on the tissues and cells the genes are expressed in. Examples of activities include:
                                                                                                                                                                                                                                                                                                                                                            New nucleic acid molecules encoding 49 human secreted proteins for diagnosing, preventing, treating or ameliorating medical conditions and used as food additives or preservatives -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        159 CTGTGGTGTTCGGCTACCTCTTCTGCATGAACAACTGGAACAGCAACAGCAATGTCTTT 218
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            39 GCAGAATGGCACAGAATTTATCTTGTGAGAATTGGTTGGCAACAGAGGCTATCTTGAATA 98
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 1385 BP; 385 A; 296 C; 275 G; 429 T; 0 other;
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                                                                                                                                                                                                                    Komatsoulis G;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Claim 1; Page 412; 454pp; English.
                                                                                                                                                     (HUMA-) HUMAN GENOME SCI INC
06-APR-2000; 2000WO-US09070.
                                                                                        14-JAN-2000; 2000US-0176052
                                                               99US-0128695
                                                                                                                                                                                                              Rosen CA, Ruben SM,
                                                                                                                                                                                                                                                                    WPI; 2000-619228/59
                                                                                                                                                                                                                                                                                                          P-PSDB; AAB45344
                                                            09-APR-1999;
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955 GGGACATGCTGATGAATCAACTGAGACACACTTCAAATCCCTTACATCCTTTAGCAGAT 1014
356 ATGCCAACCTCTATACCAGCATTCTCTTTTCTCAGCATAGATCGATACTTGA 415
                           399 TCATGAAGTACCCTTTCCGAGAACACTTTCTACAAAAGAAGGAATTTGCCATTTTAATCT 458
                                               459 CGCTGGCTGTCTGGGCCTTAGTGACCTTAGAAGTTCTACCCATGCTCACTTTCATCAATT 518
                                                                                                           519 CIGTCCCAAAAGAAGAGGGCAGTAACTGCATCGACTATGCAAGTTCTGGAAACCCTGAAC 578
                                                                                                                                                                                                                                    ACAATCICATITACAGCCTCTGCCTGACTTTGTTGGGCTTCCTAATTCCTCTCTGTGA 638
                                                                                                                                                                                                                                                                            699 CIGCCCIGCCACIGGACAAACCCCAACGCCIGGIGGICCIGGCGGGIIGIGAICTICICIA 758
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          936 GAGAGATGCTGATTAGTAAGTTCAGACAATACTTCAAGTCCCTTACATCCTTCAGGACAT 995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Human; gene therapy; G protein-coupled receptor; drug development; central nervous system disease; endocrine disease; metabolic disease; cancer; respiratory disease; digestive disease; inmune disease; inflammation; infection; circulatory disease; gene; ds.
                                                                                                                                                                         759 TACTCTTCACACCCTATCATATCATGCGCAATTTGAGGATCGCCTCACGCCTGGATAGTT
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/note= "No stop codon is given"
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AACCCCAACGCCTGGTGCTCTGTGGTTGTTGTTGTTATACTCTTCACACCCTATC 776
593 ACAACCTGATTITGACTGCAACTACTTICTGCCTCCCTTGGTGATAGTGACACTTTGCT 652
                                                                                                                          713 AAGCACGAAGGCTAACCATTCTGCTACTCCTTGCATTTTACGTATGTTTTTACCCTTCC 772
                                                             653 ATACCACGATTATCCACACTCTGACCCATGGACTGCAAACTGACAGCTGCCTTAAGCAGA 712
                                                                                                                                                                                                                                                                                                                                                                                          Human; G-protein coupled receptor; GPCR; hRUP21; agonist; inverse agonist; lung cancer; ss.
                                                                                                                                                                                                                                                                                                                                                                 Human cDNA encoding G-protein coupled receptor, hRUP21
                                                                                                                                                             777 ATATCATGCGCAATTTGAGGATCGCCTCACGCCTG 811
                                                                                                                                                                                         773 ATATCTTGAGGGTCATTCGGATCGAATCTCGCCTG 807
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99US-0171902.
2000US-0181749.
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99US-0166369.
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2000US-0235779.
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P-PSDB; AAU04375.
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14-MAR-2000;
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12-JUN-2000;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    537 GCAGTAACTGCATCGACTATGCAAGTTCTGGAAACCCTGAACACAATCTCATTTACAGCC 596
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        120 ATGCAATCGAGTTCATTTTGGACTGCTTGGGAATGTCACTGTGGTGTTCGGCTACCTCT 179
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                             Human kidney-originated G protein-coupled receptor protein TGR30 and encoded DNA, for developing drugs to treat central nervous diseases, endocrine diseases, metabolic diseases and cancer, including gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             239 recreratoreaccaeccrecerrecreatreacrateceargeceaaaaccaea
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Pred. No. 6.7e-22;
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                                                                                                                                                                                                                                                                                                              Claim 6; Page 90-91; 98pp; Japanese.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Match 8.2%;
Local Similarity 49.9%;
                                            17-JAN-2002; 2002WO-JP00270.
                                                                                                                        TAKE ) TAKEDA CHEM IND LTD.
                                                                            18-JAN-2001; 2001JP-0010714
                                                                                          30-MAR-2001; 2001JP-0102484
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P-PSDB; AAO15399.
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Endogenous and non-endogenous versions of human G-protein coupled receptors for direct identification of candidate compounds as agonists, inverse agonists or partial agonists for use as therapeutic agents -
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                                                 The sequence encodes a human G-protein coupled receptor (GFCR), hRUP21 The endogenous and non-endogenous, constitutively activated versions of human G-protein coupled receptors (GFCR), are useful for direct identification of candidate compounds as receptor agonists, inverse agonists or partial agonists having applicability as therapeutic agents for treating diseases related to GFCR, e.g. lung cancer. Mon-endogenous version of human GFCRs are also utilized in research settings and in vitro and in vivo system, incorporating GFCRs can be utilised to elucidate and understand the roles these receptors play in the human condition, both normal and diseased.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         539 GATCAGCCTGTCTCGACCTCACCTTCGG-----ATGAACTCAATACTATTAAGTGGT 592
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        713 AAGCACGAAGGCTAACCATTCTGCTACTCTTTTACGTATTTTACGTTTTTTACCCTTCC 772
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                479 TITCACTGGTAGCTGTCATTCCGATGACCTTCTTGATCACATCAACAACAAGACCAACA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DB 22; Length 1014;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0; Mismatches 369; Indels
                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 1014 BP; 258 A; 263 C; 189 G; 304 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   / Match 8.2%; Score 126.6; DB 2
Local_Similarity 49.9%; Pred. No. 6.7e-22;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ATATCATGCGCAATTTGAGGATCGCCTCACGCCTG 811
Claim 55; Page 113-114; 159pp; English,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Matches 377; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
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The invention relates to an isolated P2Y-like receptor polypeptide (ABBB38184 PABB8319) which is also referred to in the specification as antagonist) which modulates D2Y receptor activity is useful to treat a subject having a disorder that is responsive to P2Y-like receptor modulation. The disorder is a disease of immunity or inflammation. The substance may also be used to manufacture a medicine for the treatment or p2Y-like receptor and is responsive to stimulation or modulation of P2Y-like receptor activity. Disorders which may be treated include colon cancers, asthma CoPlits, inflammatory bowel syndrome, olderative colitis, theumatoid arthritis, viral diseases, hacterial infections, autoimmune diseases, dermatitis, glomerulonephritis allergies, allergic hibitis, inflammatory pain and general inflammation such as tendonitis, antimulatis, inflammatory pain and general inflammation such as tendonitis, and immune the such as the pain and general inflammation such as tendonitis, and immunerative man immunerative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               5
                                                                                                                                                                                                                                                            Human: Py2-like receptor; HIPHUM 0000037; immunity; inflammation; cancer; Crohn's disease; irritable bowel syndrome; rheumatoid arthritis; immunomodulator; anti-inflammatory; cytostatic; antiarthmatic; gastrointestinal; anti-ulcer; antirheumatic; antiarthritic; virucide; antibacterial; immunosuppressive; dermatological; nephrotropic;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      polymyositis or prostatitis. The invention provides alternative substances for the treatment of immunological and inflammatory diseases. The present sequence is that the P2Y-like receptor variant encoding gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    An isolated P2Y-like receptor polypeptide (HIPHUM 0000037) which can be
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             used for the identification of agonists and antagonists which may be used to treat an immune or inflammatory disease
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
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                                                                                                                                                                                                            Human P2Y-like receptor variant encoding gene SEQ ID NO 3.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Indels
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /product= "P2Y-like receptor variant"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 126.6; DB 24;
Pred. No. 6.7e-22;
0; Mismatches 369;
                                                                                                                                                                                                                                                                                                                                                                                                      antiallergic; analgesic; receptor; gene; ds.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Location/Qualifiers
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                                                  ABN85630 standard; DNA; 1014 BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      01-SEP-2000; 2000GB-0021524.
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Matches 377; Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /*tag=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Foord SM, Ignar DM;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2002-511268/55.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                           Homo sapiens.
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                                                                                                                                                          18-SEP-2002
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                                                                                                     ABN85630;
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RESULT 11
                              ABN85630
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60 CTTGTGAGAATTGGTTGGCAACAGAGGCTATCTTGAATAAGTACTACCTCCTCTGCATTT 119

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Human; ds; gene; P2Y1-like G protein-coupled receptor; GPCR; infection; pain; cancer; anorexia; bulimia; asthma; hypotension; central nervous system disease; acute heart failure; hyportension; urinary retention; osteoporosis; diabetes; angina pectoris; myocardial infarction; ulcer; inflammation; allergy; multiple sclerosis; benign prostatic hypertrophy; psychosis; neurological disorder; dystinesia; HIV; human immunodeficiency virus infection; CNS disorder; parkinson's disease; anxiety; schizophrenia; manic depression; delirium; dementia; severe mental retardation; Huntington's disease;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            717 AACCCCAACGCCTGGTGGTCCTGGCGGTTGTGATCTTCTCTATACTCTTCACACCCTATC 776
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              593 ACAACCIGATTITGACTGCAACTACTTTCTGCCTCCCTTGGTGATAGTGACACTTTGCT 652
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              653 ATACCACGATTATCCACACTCTGACCCATGGACTGCAAACTGACAGCTGCCTTAAGCAGA 712
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        419 GCTGCTTTTCCATTCACAAAACTCGATGTGCAGTTGTAGCCTGTGCTGTGGTGGTGGATCA 478
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    477 TAGTGACCTTAGAAGTTCTACCCATGCTCACTTTCATCAATTCTGTCCCAAAAGAAGAGG 536
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                                                                                                                                                       119 AIGGCATTATCTTCCTGGGGATTTCCAGGCAAIGCAGTAGTGATATCCACTTACATTT 178
                                                                                                                                                                                                                            180 TCTGCATGAAGAACTGGAACAGCAGCAATGTCTTTTTTAACCTTTCCATCTCTGACT 239
                                                                                                                                                                                                                                                                      239 IGCIGIATCIGACCAGCCICCCTICCIGATICACIACIAIGCCAGIGGCGAAAACIGGA 298
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CCTATGGAGATGTTCTCTGTATAAGCAACCGATATGTGCTTCACACCAACCTCTACACCA 356
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       299 TCTTTGGAGATTTCATGTGTAAGTTTATCCGCTTCAGCTTCCATTTCAACCTGTATAGCA 358
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GCATCCTCTTCCTCACTTTCATTAGCATGGACCGATATCTGCTCATGAAGTACCCTTTCC 416
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      359 GCATCCTCTCCTCACCTGTTTCAGCATCTTCCGCTACTGTGTGATCATTCACCCAATGA 418
120 ATGCAATCGAGTTCATTTTGGACTGCTTGGGAATGTCACTGTGGTGTTCGGCTACCTCT 179
                                                                                                                                                                                                                                                                                                                                                            Human DNA encoding P2Y1-like G protein-coupled receptor.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      777 ATATCATGCGCAATTTGAGGATCGCCTCACGCCTG 811
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rice invention trainers to a purition number for the GPCR).

CC freedprox (GPCR) polypeptide and the nucleic acids encoding it

(including 5' and 3 sequences, promoters, fragments, variants, or a

cc freedprox (GPCR).

Also included are an expression vector comprising the nucleic acid,

Also included are an expression vector comprising the nucleic acid,

a host cell containing the vector and the identification of modulators of

the GPCR especially those that reduce the acitvity of the GPCR.

The nucleic acid is useful for detecting a polynucleotide encoding

the GPCR in a biological sample. The GPCR and nucleic acid are useful for

CC screening for agents which decrease the activity of the GPCR and

cc screening for agents which decrease the activity of the GPCR and

cc screening for agents. The modulator or agent useful for modulating

cc bacterial, fungal, protozoan, and viral infection, pain, cancer,

anorexia, bulimia, asthma, central nervous system (CNS) disease such as

concexia, diabetes, angina pectoris, moradial infarction, ulcer,

confinammation, allergy, multiple sclerosis, benign prostatic hypertrophy,

cc flummation, allergy, multiple sclerosis, benign prostatic hypertrophy,

cc flummation immunodeficiency virus), CNS discorders such as Parkinson's

cc flummating retardation, Huntington's disease and Tourette's syndrome.
                                                                                                                                                                                                                                                                                                                                                                                                                                                 Novel human P2Y1-like G protein-coupled receptor polypeptide which can be regulated for treating infection, pain, cancer, diabetes, anorexia, asthma, hypertension, neurological disorder and dyskinesia
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                240 TIGCTITCCTGTGCACCTTCCCATCCTGATAAGAGTTATGCCAAI---GATAAGGGGA 296
239 TGCTGTATCTGACCAGCCTCCTGCTGATTCACTACTATGCCAGTGGCGAAAACTGGA 298
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        179 rcaaaargaggccrrggaagaggaggaccarcarrarggrgaaccrgggcggagarc 238
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             60 CITGTGAGAATTGGTTGGCAACAGAGGCTATCTTGAATAAGTACTACCTCTCTGCATTT 119
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              The invention relates to a purified human P2Y1-like G protein-coupled
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  180 TCIGCAIGAAGAACIGGAACAGCAGCAAIGICTAITITAACCIIICCAICICIGACI
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 1014 BP; 258 A; 263 C; 189 G; 304 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                8.2%; Score 126.6; DB 2.49.9%; Pred. No. 6.7e-22;
                                                                                        /product= "P2Y1-like GPCR"
                                 Location/Qualifiers
1..1014
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Claim 1; Fig 5; 118pp; English.
                                                                                                                                                                                                                         10-AUG-2001; 2001WO-EP09243
                                                                                                                                                                                                                                                                  14-AUG-2000; 2000US-224989P
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                                                                             /*tag=
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Matches 377; Conserva
                                                                                                                                                                                                                                                                                                                (FARB ) BAYER AG.
                                                                                                                                                                                                                                                                                                                                                                                                                    P-PSDB; AAU77600
                                                                                                                                                                                                                                                                                                                                                        Ramakrishnan S;
                                                                                                                                            WO200214511-A2.
Homo sapiens.
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                                        Key
Qλ
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Human purinergic-related G-protein coupled receptor (GPCR) cDNA sequence.
297 CCTATGGAGATGTTCTCTGTATAAGCAACCGATATGTGCTTCACACCAACCTCTACACCA 356
                     299 TCTTTGGAGATTTCATGTGTAAGTTTATCCGCTTCAGCTTCCATTTCAACCTGTATAGCA 358
                                            357 GCAICCICTICCICACITICATIAGCAIGGACCGAIAICTGCICAIGAAGIACCCITICC 416
                                                          477 TAGTGACCTTAGAAGTTCTACCCATGCTCACTTTCATCAATTCTGTCCCAAAAGAAGAGG 536
                                                                                                                                                                                   537 GCAGTAACTGCATCGACTATGCAAGTTCTGGAAACCCTGAACACAATCTCATTTACAGCC 596
                                                                                                                                                                                                                                597 ICTGCCTGACTITGTTGGGCTTCCTAATTCCTCTCTGTGATGTGCTTCTTCTACTACA 656
                                                                                                                                                    653 ATACCACGATTATCCACACTCTGACCCATGGACTGCAAACTGACAGCTGCCTTAAGCAGA 712
                                                                                                                                                                                                                                                                                                                         717 AACCCCAACGCCTGGTGGTCCTGGCGGTTGTGATCTTCTCTATACTCTTCACACCCTATC 776
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Human; chromosome 13; purinergic GPCR; G-protein coupled receptor; signal transduction; human protease; GPCR disorder; gene therapy;
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/product= "G-protein coupled receptor"
                                                                                                                                                                                                                                                                                                                                                                     777 ATATCATGCGCAATTTGAGGATCGCCTCACGCCTG 811
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    transgenic animal; gene; ss.
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Novel isolated G-protein coupled receptor peptide useful for treating disorder characterised by absence of, in appropriate or unwanted expression of the receptor protein, and as immunogens to raise antibodies

Claim 23; Fig 1; 64pp; English.

therapeutic proteins; assays designed to quantitatively determine levels of the protein in biological fluids; identifying compounds which modulate the activity of the GPCR, or the interaction of the GPCR and a molecule with which it normally interacts; and treating a disorder characterised by an absence of, or inappropriate expression of the GPCR protein. The GPCR nucleic acids of the invention are useful in diagnostic assays to identify changes in the GPCR nucleic acid that lead to pathology; controlling GPCR expression; and in gene therapy to treat patients with aberrant GPCR gene expression. The GPCR nucleic acids can also be used in the production of transgenic animals. The present specifically claimed human cDNA sequence (located on chromosome 13) encodes a purinergic-related G-protein coupled receptor (GPCR) of the invention. GPCRs constitute a major class of proteins responsible for signal transduction within a cell. Upon binding of a ligand to the extracellular portion of a GPCR, a signal is transduced of GPCR proteins can be divided into five families, family I contains the purinergic GPCRs (e.g. the P2Y receptors). P2Y receptors are characterised by their selective responsiveness towards APP and its analoques, some also respond to UTP. The invention comprises a human G-protein coupled receptor protein and encoding nucleic acids. The GPCR protein and nucleic acids of the invention are useful in the treatment of a disease or condition mediated by a human protease. The GPCR protein of susfell for: the development/identification of

Sequence 1014 BP; 258 A; 263 C; 189 G; 304 T; 0 other;

2; 60 CTTGTGAGAATTGGTTGGCAACAGAGGCTATCTTGAATAAGTACTACCTCTGCATTTT 119 59 CTTTTGGAAATTGCACTGATGAAAACATCCCACTCAAGATGCACTACCTCCCTGTTATTT 118 120 ATGCAATCGAGTTCATTTTGGACTGCTTGGGAATGTCACTGTGGTGTTCGGCTACCTCT 179 180 TCTGCATGAAGAACTGGAACAGCAGCAATGTCTATTTTAACCTTTCCATCTCTGACT 239 Gaps 240 TIGCTITCCTGTGCACCCTTCCCATCCTGATAAAGAGTTATGCCCAAT---GATAAGGGGA 296 297 CCTATGGAGATGTTCTCTGTATAAGCAACCGATATGTGCTTCACACCAACCTCTACACCA 356 299 TCTTTGGAGATTTCATGTGTAAGTTTATCGCTTCAGCTTCCATTTCAACCTGTATAGCA 358 357 GCAICCTCTTCCTCACTTTCATTAGCATGGACCGATATCTGCTCATGAAGTACCCTTTCC 416 477 TAGTGACCTTAGAAGTTCTACCCATGCTCACTTTCATCAATTCTGTCCCAAAAGAAGAGG Query Match 8.2%; Score 126.6; DB 24; Length 1014; Best Local Similarity 49.9%; Pred. No. 6.7e-22; Matches 377; Conservative 0; Mismatches 369; Indels 9; g Óγ q QQ δ δy qq òχ d οy ΟŊ qq g δ qq Q

537 GCAGTAACTGCATCGACTATGCAAGTTCTGGAAACCCTGAACAAATCTCATTTACAGCC 596

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Beasley EM;

Di Francesco V,

Zhao Q, Cravchik A,

Wei M,

WPI; 2002-075312/10. P-PSDB; AA014027

08-AUG-2000; 2000US-0634656

(APPL-) APPLERA CORP.

Pred. No. 7.4e-22;

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Best Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 New human P2Y111 gene, useful for treatment and diagnosis of associated diseases, and related proteins, antibodies and modulators, encodes {\tt G}
                                                                                                                                                                                        653 ATACCACGATTATCCACACTCTGACCCCATGGACTGCAAACTGACAGCTGCCTTAAGCAGA 712
                                                                                                                                                                                                                                      717 AACCCCAACGCCTGGTGGTCCTGGCGGTTGTGATCTTCTCTATACTCTTCACACCCTATC 776
                                                                                             593 ACAACCTGATTTTGACTGCAACTACTTTCTGCCTCCCTTGGTGATAGTGACACTTTGCT 652
                                                                                                                                          713 AAGCACGAAGGCTAACCATTCTGCTACTCTTGCATTTTACGTATTTTTACCCTTCC 772
                                               597 TCTGCCTGACTTTGTTGGGCTTCCTAATTCCTCTCTGTGATGTGCTTCTTCTACTACA 656
       539 GATCAGCCTGTCTCGACCTCACCAGTTCGG-----ATGAACTCAATACTATTAAGTGGT 592
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              G protein-coupled; receptor;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /product= "P2y1-like purine receptor"
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ABL56197 standard; cDNA; 1288 BP
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gene therapy; thyroid; gene; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Claim 5; Page 3; 5pp; German.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Human P2Y1-li encoding cDNA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WPI; 2002-353329/39.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (BRUE/) BRUESS M.
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DB 24; Length 1288;

8.2%; Score 126.6;

Query Match

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         597 TCTGCCTGACTTTGTTGGGCTTCCTAATTCCTCTCTGTGATGTGCTTCTTCTACA 656
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             610 ACAACCIGATITIGACTGCAACTACTITCTGCCTCCCTTGGTGATAGTGACACTTTGCT 669
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    670 ATACCACGATTATCCACACTCTGACCCATGGACTGCAAACTGACAGCTGCCTTAAGCAGA 729
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GCATCCTCTTCCTCACTTTCATTAGCATGGACCGATATCTGCTCATGAAGTACCCTTTCC 416
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                                                                                                                                                                                                                                                                                                                                                        CCTATGGAGATGTTCTCTGTATAAGCAACCGATATGTGCTTCACACCAACCTCTACACCA 356
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TCTTTGGAGATTTCATGTGTAAGTTTATCCGCTTCAGCTTCCATTTCAACCTGTATAGCA 375
                                           CTTGTGAGAATTGGTTGGCAACAGAGCTATCTTGAATAAGTACTACCTCTCTGCATTTT 119
                                                                                         76 CTTTIGGAAATIGCACIGAIGAAAACAICCCACICAAGAIGCACIACCICCIGIIAITI 135
                                                                                                                                     120 AIGCAAICGAGIICAIIIIIGGACIGCIIGGGAAIGICACIGIGGIGIICGGCIACCICI 179
                                                                                                                                                                                      136 AIGGCATTATCTTCCTCGTGGGATTTCCAGGCAATGCAGTAGTGATATCCACTTACATT 195
                                                                                                                                                                                                                                    TCTGCATGAAGAACTGGAACAGCAGCAATGTCTATTTTAACCTTTCCATCTCTGACT 239
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    Indels
  0; Mismatches 369;
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         377; Conservative
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Homo sapiens

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/product= "Protein 39404"
       Location/Qualifiers
294..1307
                                                  (MILL-) MILLENNIUM PHARM INC
                                           99US-0475790.
                                    22-DEC-2000; 2000WO-US35309
                                                         Glucksmann MA, White D;
                                                               WPI; 2001-432880/46.
                                                                   P-PSDB; AAU04584
                       WO200149847-A2
                                           30-DEC-1999;
                              12-JUL-2001
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Novel isolated 26904, 38911 and 39404 polypeptides which are seven transmembrane proteins belonging to superfamily of G-protein-coupled receptors, useful for treating disorders of spleen, lung, liver, brain

Claim 2; Fig 1; 164pp; English.

The sequence encodes a novel human seven transmembrane domain

protein belonging to the G-protein coupled receptor (GPCR) superfamily,

control 39404. The receptor is useful in drug screening assays, to

identify compounds that modulate receptor activity and/or interact with

the receptor, and for producing antibodies specific for the receptor, its

control and 39404 protein associated disorder characterised by

aberrant expression or activity of the protein, for monitoring

aberrant expression or activity of the protein, for monitoring

characteristic during clinical trials and other treatment, as bait

proteins in a two-hybrid or three-hybrid assay, and in pharmacogenomic

analysis. The proteins and nucleic acids encoding them are useful for

characteristic and treatment of disorders selected from disorders of the

spleen, lung such as Good pasture's syndrome, liver such as viral

chaptitis, brain such as Alzheimer's disease, haematopoietic stem cells

such as lymphoma, kidney such as Heymann nephritis, bone such as Paget's

disease, colon such as Crohn's disease, uterus and endometrium such as

chapticis, T-cell disorders such as systemic lupus erythematosus,

diseases of the skin such as actinic keratosis, disorders of the heart

conditions disorders involving blood vessels such as Kawasaki

conditions disorders involving blood vessels such as Kawasaki syndrome, disorders involving the thymus such as DiGeorge syndrome, disorders involving B-cells such as peripheral B-cell neoplasms, disorders of the breast such as inflammations, and disorders involving the testis and epididymis such as teratoma. Numerous examples of each type of disorder are given in the specification.

Sequence 1729 BP; 461 A; 403 C; 302 G; 563 T; 0 other;

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60 CTTGTGAGAATTGGTTGGCAACAGGGTATCTTGAATAAGTACTACCTCTCTGCATTT 119
                                                                                                                                                ATGCAATCGAGTTCATTTTTGGACTGCTTGGGAATGTCACTGTGGTGTTCGGCTACCTCT 179
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1 8.2%; Score 126.6; DB 22; Length 1729; Similarity 49.9%; Pred. No. 8.4e-22; 77; Conservative 0; Mismatches 369; Indels 9;
                                                         Matches 377;
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946 ATACCACGATTATCCACACTCTGACCCATGGACTGCAAACTGACAGCTGCCTTAAGCAGA 1005
297 CCTATGGAGATGTTCTCTGTATAGCAACCGATATGTGCTTCACACCAACCTCTACACCA 356
                                                                                                                               357 GCATCCTCTTCCTCACTTTCATTAGCATGGACCGATATCTGCTCATGAAGTACCCTTTCC 416
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                                                                             597 TCTGCCTGACTTTGTTGGGCTTCCTAATTCCTCTCTGTGATGTGCTTCTTCTACAAA
                                                                                                                                                                                                          417 GAGAACACTITCTACAAAAGAAGGAATTTGCCATTITAATCTCGCTGGCTGTCTGGGCCT
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GenCore version 5.1.3
Copyright (c) 1993 - 2003 Compugen Ltd.
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Issued\_Patents\_NA:\* /
1-:-/cgn2\_6/ptodata/1/ina/5A\_COMB.seq:\*
2: /cgn2\_6/ptodata/1/ina/5B\_COMB.seq:\*
3: /cgn2\_6/ptodata/1/ina/6A\_COMB.seq:\*
4: /cgn2\_6/ptodata/1/ina/6B\_COMB.seq:\*
5: /cgn2\_6/ptodata/1/ina/PCTUS\_COMB.seq:\*
6: /cgn2\_6/ptodata/1/ina/pcTUS\_COMB.seq:\* Database

Post-processing: Minimum Match 0% Maximum Match 100% Listing first 45 summaries

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

## SUMMARIES

Result		% Query				
No.	Score	Match	Match Length DB	8	ID	Description
-	589.2	38.2	1996	~	US-08-559-524A-1	Sequence 1. Appli . >
ا _	589-2-	-38.2	-1996-	u,	US-08=749=707-1	
<b>.</b>	82.2	5.3	1805	4	US-08-405-271A-18	Sequence 18, Appl
	80	5.2	1586	-	US-08-461-244-1	
	79.6	5.2	984	æ	US-08-513-974B-57	
	9.62	5.2	1023	e	US-08-513-974B-379	Sequence 379. App
	78.4	5.1	2156	П	US-08-012-988A-1	
_	78	5.1	1640	m	US-08-781-250-1	, .
	74.8	4.8	984	n	US-08-459-046-1	ì
_	74.2	4.8	1301	~	US-08-467-948A-7	7
_,	74.2	4.8	1301	m	US-08-467-947A-7	7
7	74	4.8	1643	Н	US-08-383-750-3	, m
<u>~</u>	74	4.8	1643	m	US-08-352-678-3	Έ,
	74	4.8	1643	Ŋ	PCT-US93-09636-3	m
	73.8	4.8	1065	4	US-08-847-296B-2	7
	73.8	4.8	1915	4	US-08-575-967A-3	ìm
17	72	4.7	1147	П	US-08-417-103-15	15,
80 1	72	4.7	1351	٦	US-07-816-283-5	'n
19	72	4.7	1351	Н	US-08-417-103-5	2
_	71.4	4.6	1796	Н	US-07-816-283-11	11,
77	71.4	4.6	1796	-	US-08-417-103-11	11,
77	71.2	4.6	2272	٣	US-08-147-592A-3	3, 4
57	71.2	4.6	2272	4	US-08-292-694A-3	ω,
	70.8	4.6	1607	٣	US-08-875-573-19	19
25	70.8	4.6	1695	4	US-09-232-878-1	1
	70.8	4.6	1842	Н	US-08-442-134A-1	H
	70.8	4.6	1842	7	US-08-444-581B-1	Ţ

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39 GCAGAATGGCACAGAATTTATCTTGTGGAATTGGTTGGCAACAGAGGCTATCTTGAATA 98

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1810-11-17-18-28-28-28-28-28-28-28-28-28-28-28-28-28		Gaps
Sequence Seq		4
	Length	Indels
GENERAL STATE OF THE STATE OF T	ME/KEY: CDS CATION: 6251626 -524A-1 atch 38.28; Score 589.2; DB 2; cal Similarity 75.18; Pred. No. 3.1e-156;	vative 0; Mismatches 248;
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1412 GGAAGCAGTATCAGTGCACTCAGGTCGTCATCAACTCCTTTTACATTGTGACACGGGCTT 1471
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1292 CIGCTCTGCCCCTTGAAAGCCTCTCAACTTGGTCATCGCAGTGGTAATCTTCTCTG 1351
                                                                                                                                                                                                                                                                                                               819 G---GCCACAAGGATGTACACAGAAGGCCATCAAATCTATATACACACTGACACGGCCTC 875
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                                                                                                                                   219 TTAACCTTTCCATCTCTGACTTTGCTTTCCTGTGCACCCTTCCCATCCTGATAAAGAGTT 278
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632 GGATCATGGCATGGAATGCAACTTGCAAAACTGGCTGGCAGCAGAGGCTGCCTGGAAA 691
                            99 AGTACTACCTCTCTGCATTTTATGCAATCGAGTTCATTTTTGGACTGCTTGGGAATGTCA 158
                                          1532 GGGACATGCTGATGAATCAACTGAGACACACTTCAAATCCCTTACATCTTTAGCAGAT
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                                                                                             752 TIGITITITACGCCIACATCTICTCTCTGAAGAACTGGAACAGCAGTAATATTATCTCT
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Sequence 1, Application US/08749707 Patent No. (6063582 ) GENERAL INFORMATION:

US-08-749-707-1

RESULT 2

APPLICANT: Conley, Pamela B.

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1052 CCTTGGCCATTTGGGTTTTAGTAACCTTAGAGTTACTACCATACTACCATATAAATC 1111
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         339 ACACCAACCTCTACACCAGCATCCTCTTCCTTTCATTAGCATGGACCGATATCTGC
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                                                                                                                                                                                                                                       SOFTWARE: PatentIn Release #1.0, Version #1.30 CURRENT APPLICATION DATA:
                   NOVEL PURINERGIC RECEPTOR
                                                                                                                                                                                                                                                                                                                                                                          044481-5010-01-US
APPLICANT: Jantzen, Hans-Michael
TITLE OF INVENTION: NOVEL PURINERGIC RECE
NUMBER OF SEQUENCES: 14
NUMBER OF SEQUENCES:
ADDRESSEE: MORGAN, LEWIS & BOCKIUS LLP
                                                                                                                                                                                                                                                                    APPLICATION NUMBER: US/08/749,707
FILING DATE: 15-NOV-1996
CLASSIFICATION: 536
ATTORNEY/AGENT INFORMATION:
NAME: Adler, Reid G.
REGISTRATION NUMBER: 30,988
                                                                                                                                                                                                     COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                              REFERENCE/DOCKET NUMBER: 04
TELECOMMUNICATION INFORMATION:
                                                                                       1800 M Street, N.W
                                                                                                                                                                                                                                                                                                                                                                                                                                TELEFAX: 202-467-7176
INFORMATION FOR SEQ ID NO: 1:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                      COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LENGTH: 1996 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
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Best Local Similarity 75.1%
Matches 762; Conservative
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20036-5869
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519 CTGTCCCAAAAGAAGAGGGCAGTAACTGCATCGACTATGCAAGTTCTGGAAACCCTGAAC 578
                                                                ACAATCTCATTTACAGCCTCTGCCTGACTTTGTTGGGGTTCCTAATTCCTCTCTGTGA 638
                                                                                                                            639 TGTGCTTCTTCTACAAGATGGTAGTCTTCTTAAAGAGGAGGAGCCAGCAGCAAGAA 698
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2000 PENNSYLVANIA AVENUE, NW, Suite 5500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SOFTWARE: Patentin Release #1.0, Version #1.30 CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT: EVANS, CHRISTOPHER J.
APPLICANT: KEITH, DUANE E.
TITLE OF INVENTION: OPIOID RECEPTOR GENES
NUMBER OF SEQUENCES: 25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICATION NUMBER: US/08/405,271A FILING DATE: 14-MAR-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 18, Application US/08405271A Patent No. 6432652 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             COUNTRY: USA
ZIP: 20006-1888
COMPUTER READABLE FORM:
MEDIUM TYPE: Flopy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 REGISTRATION NUMBER: 29,959
REFERENCE/DOCKET NUMBER: 22(
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TELEPHONE: (202) 887-1500
TELEFAX: (202) 887-0763
TELEX: 90-4030 MRSNFOERSWSH
INFORMATION FOR SEQ ID NO: 18:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ATTORNEY/AGENT INFORMATION:
NAME: MURASHIGE, KATE H.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE CHARACTERISTICS:
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ADDRESSEE: MORRISON
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85 GGCTATCTTGAATAAGTACTACCTCTGCATTTTATGCAATCGAGTTCATTTTTGGACT 144
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                                                                                                                                                                                                                                  6
                                                                                                                                                                                  5.3%; Score 82.2; DB 4; Length 1805;
44.5%; Pred. No. 2.4e-13;
tive 0; Mismatches 463; Indels 9
LENGTH: 1805 base pairs
                                                                                                                                                                                                                         Matches 379; Conservative
                     TYPE: nucleic acid
STRANDEDNESS: double
                                                                                                   ; NAME/KEY: CDS
; LOCATION: 10..1119
US-08-405-271A-18
                                                                                                                                                                                                        Best Local Similarity
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                                                          TOPOLOGY:
                                                                                                                                                                                    Query Match
                                                                               FEATURE
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PRICHARD APPLICATION DATA:
APPLICATION NUMBER: PCT/JP95/01599
FILING DATE: 10-A0G-1995
PRICH APPLICATION DATA:
APPLICATION NUMBER: JP 7-093989
FILING DATE: 19-A0G-1995
PRICH APPLICATION DATA:
APPLICATION DATA:
APPLICATION NUMBER: JP 7-057186
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CLASSIFICATION: 536
TOR ADDRESS.
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APPLICATION NUMBER: JP 6-326611
FILING DATE: 28-DEC-1994
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30-SEP-1994
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FILING DATE: 02-NOV-1994
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20-JAN-1995
                                                                                                                                                                                                                                                                                                                                                                                      Sequence 57, Application US/08513974B Patent No. 6114139
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MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT: Fujii, Ryo
APPLICANT: Ohtaki, Tetsuya
APPLICANT: Fukusumi, Shoji
APPLICANT: Ohgi, Kazuhiro
                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT: Hinuma, Shuji
APPLICANT: Hosoya, Masaki
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APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CORRESPONDENCE ADDRESS:
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                                                                                                                                                                                                                                                                                                                                                                                                                                     GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Boston
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match 5.2%; Score 80; DB 1; Length 1586; Best Local Similarity 47.3%; Pred. No. 9.2e-13; Matches 276; Conservative 0; Mismatches 305; Indels
                          Sequence 1, Application US/08461244

Patent No. 5776729

GENERAL INFORMATION:
APPLICANT: Stopet, Daniel R.
APPLICANT: Ki, Li
APPLICANT: Ruben, Steven M.
APPLICANT: Rosen, Craig A.
TITLE OF INVENTION: HUMAN G-PROTEIN RECEPTOR HGBER32
NUMBER OF SEQUENCES: 7
CORRESPONDENCE ADDRESS:
ADDRESSEE: STUART & OLSTEIN
CORRESSEE: STUART & OLSTEIN
                                                                                                                                                                                                                                                                                                                                                                                                                                     SOFTWARE: Patentin Release #1.0, Version #1.30 CURRENT APPLICATION DATA: APPLICATION NUMBER: US/08/461,244 FILING DATE: 03/0N-1995 CLASSIFICATION: 536
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         REGISTRATION NUMBER: 36,134
REGISTRATION NUMBER: 36,134
REFERENCE/DOCKET NUMBER: 325800-445
TELECOMMUNICATION INFORMATION:
TELEPHONE: 201-994-1700
TELEPRAX: 201-994-1744
                                                                                                                                                                                                                                                                                                                                                             COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IEM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                   6 Becker Farm Road
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LENGTH: 1586 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
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431..1495
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MOLECULE TYPE:
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LOCATION:
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                  US-08-461-244-1
RESULT 4
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1010 TGGAAGATCTTCACCAACTTCAAAATGAACATTTAGGCTTGTTGATCCCATTCACCATC 1069
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890 IGCCIGGCAGTATGGCTAACCGCCATTATGGCTACCATCCCATTGCTAGTGTTTTACCAA 949
                                                                                      458 TCGCTGGCTGTCTGGGCCTTAGTGACCTTAGAAGTTCTACCATGCTCACTTTCATCAAT 517
                                                                                                                                                                                                             518 TCTGTCCCAAAAGAAGAGGGCAGTAACTGCATCGACTATGCAAGTTCTGGAAACCCTGAA 577
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OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
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PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NUMBER OF SEQUENCES:
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APPLICANT: Hinuma,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    USA
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APPLICANT:
APPLICANT:
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                                                                                                                                                                                                                                                                                                                                                Sequence 379,
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                                                                                                                                                                                                                                                                                                               RESULT 6
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                             APPLICATION NUMBER: JP 6-189274
FILING DATE: 11-AUG-1994
PRIOR APPLICATION DATA:
APPLICATION NUMBER: JP 6-189273
FILING DATE: 11-AUG-1945
PRIOR APPLICATION DATA:
                                                                                                                               APPLICATION NUMBER: JP 6-189272
FILING DATE: 11-AUG-1994
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                           NAME: Resnick, David S.
REGISTRATION NUMBER: 34,235
REFERENCE/DOCKET NUMBER: 4575:
TELECOMMUNICATION INFORMATION:
TELEPHONE: 617-523-3400
TELEFAX: 617-523-6440
FILING DATE: 30-SEP-1994 PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                 INFORMATION FOR SEQ 1D NO:
SEQUENCE CHARACTERISTICS:
LENGTH: 984 base pairs
TYPE: nucleic acid
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737 CIGGCGGIIGIGAICTICICIAIACICITCACACCCIAICAIATCAIGCGCAAITIGAGG 796
                                                                               797 ATCGCCICACGCCTGGATAGTTGGCCACAAGGATGTACACAGAAGGCCATCAAATCTATA 856
                                                                                                                       787 crescadrescrecacecescerecerecerecretarresasserranges
                                                                                                                                                                 857 TACACACTGACACGGCCTCTGGCCTTTCTGAACAGTGCCATCAATCCCATCTTCTACTTC 916
                                                                                                                                                                                              APPLICANT: Ohgl, Kazuhiro
TITLE OF INVENTION: G PROTEIN COUPLED RECEPTOR PROTEIN,
TITLE OF INVENTION: PRODUCTION, AND USE THEREOF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           3: DIKE, BRONSTEIN, ROBERTS & CUSHMAN, LLP 130 Water Street
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SOFTWARE: PC-DOS/MS-DOS SOFTWARE: PC-DOS/MS-DOS CURRENT APPLICATION DATA: APPLICATION NUMBER: US/08/513,974B FILING DATE: 14-SEP-1995 CLASSIFICATION: 536
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APPLICATION NUMBER: PCT/JP95/01599
                                                                                                                                                                                                                                                                                                                                                                                        oequence 379, Application US/08513974B
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PRIOR APPLICATION DATA:
PITTER
PITTER
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FILING DATE: 16-MAR-1995
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            JP 7-093989
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FILING DATE: 02-NOV-1994
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FILING DATE: 30-SEP-1994
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    UMBER: JP 6-326611
28-DEC-1994
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              COMPUTER: Floppy disk COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-nnc nn SOPTWANDER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT: Ohtaki, Tetsuya APPLICANT: Fukusumi, Shoji
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FILING DATE: 10-AUG-1995
PRIOR APPLICATION DATA:
APPLICATION NUMBER: JP 7-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                19-AUG-1995
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PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                               Hinuma, Shuji
Hosoya, Masaki
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CORRESPONDENCE ADDRESS:
ADDRESSEE: DIKE, BRO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                COMPUTER READABLE FORM:
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APPLICATION NUMBER:
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15280-118
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NAME: Weber, Kenneth A.
REGISTRATION NUMBER: 31,677
REFERENCE/DOCKET NUMBER: 155
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MOLECULE TYPE: DNA (genomic)
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TELEFAX: 415-543-5043
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Best Local Similarity 54.1
Matches 160; Conservative
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259..275
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STRANDEDNESS: single
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COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy of
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LOCATION:
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Best Local Similarity 46.0%; Pred. No. 9.3e-13;
Matches 388; Conservative 0; Mismatches 444; Indels 12; Gaps
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APPLICATION NUMBER: JP 6-189274
FILING DATE: 11-AUG-1994
PRIOR APPLICATION DATA:
APPLICATION NUMBER: JP 6-189273
FILING DATE: 11-AUG-1945
PRIOR APPLICATION NUMBER: JP 6-189272
PRIOR APPLICATION NUMBER: JP 6-189272
FILING DATE: 11-AUG-1994
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                        NAME: Resnick, David S.
REGISTRATION NUMBER: 34,235
REFERENCE/DOCKET NUMBER: 45753
TELECOMMUNICATION INFORMATION:
TELEPHONE: 617-523-3400
TELEPRAX: 617-523-6440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        INFORMATION FOR SEQ ID NO: 379: SEQUENCE CHARACTERISTICS: LENGTH: 1023 base pairs TYPE: nucleic acid STRANDEDNESS: double
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; LOCATION: 37..1020
US-08-513-974B-379
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703 GAIGGCCCGGCAGAGCCIGIGGCCCAGGAGCGGCGTGGCAAGGCGGCCCGCAIGGCCGIG 762
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GENERAL I
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COMPUTER: IBM PC COMPATIBLE
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PATENTIN Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/012,988A .
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APPLICANT: Van Horn, Stephanie
APPLICANT: Bergsma, Derk
APPLICANT: Mao, Joyce Yue
TITLE OF INVENTION: CDNA CLONE HE8CS41 THAT ENCODES A NOVEL 7-TRANSMEMBRAN
107 CTCTCTGCATTTTATGCAATCGAGTTCATTTTTGGACTGCTTGGGAATGTCACTGTGGTG 166
                  231 CTGGTCCTTGTGCAATACAAGAGGCTAAAAACATGACCAGCATCTACCTCCTGAACCTG 290
                                                                                                                                                                          287 GATAAGGGGACCTATGGAGATGTTCTCTGTATAAGCAACCGATATGTGCTTCACACCAAC 346
                                                                                                                                                                                           347 CTCTACACCAGCATCCTCTTTCATTTAGCATGGACCGATATCTGCTCAT 402
                                                                                                                                                                                                                                                       Length 1640;
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Pred. No. 3.4e-12;
0; Mismatches 200;
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SOFTWARE: FastSEO for Windows Version 2.0
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICATION NUMBER: US/08/781,250
FILING DATE: 10-JAN-1997
CLASSIFICATION: 514
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ATG50043
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1: SmithKline Beecham 709 Swedeland Road
                                                                                                                                                                                                                                                                                                                                      Sequence 1, Application US/08781250; Patent No. 6010877; GENERAL INFORMATION:
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TELEPHONE: 610-270-5219
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            INFORMATION FOR SEQ ID NO: 1:
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Best Local Similarity 49.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MEDIUM TYPE: Diskette
COMPUTER: IBM Compatible
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NAME: William T. Han,
REGISTRATION NUMBER: 34,
REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        LENGTH: 1640 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE CHARACTERISTICS:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TELEPHONE: 610-270-521
TELEFAX: 610-270-4060
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          COMPUTER READABLE FORM:
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PRIOR APPLICATION DATA:
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STRANDEDNESS: single
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FILING DATE:
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Matches 198; Conservative

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83 GAGGCTATCTTGAATAAGTACTACCTCTGCATTTTATGCAATCGAGTTCATTTTTGGA 142
                                  351 GATGATTCCTTCAAGTATAATCTCAATGGTGCTGTCTACAGTGTTGTATTCATCTTGGGT 410
                                                                                     143 CTGCTTGGGAATGTCACTGTGGTGTTCGGCTACCTCTTCTGCATGAAGAACTGGAACAGC 202
                                                                                                                              411 CIGATAACCAACAGIGICICICIGITIGICITICIGITICCGCAIGAAAAIGAGAAGIGAG 470
                                                                                                                                                                       203 AGCAATGTCTATCTTTTAACCTTTCCATCTGACTTTGCTTTCCTGTGCACCCTTCCC 262
                                                                                                                                                                                                                                                                                        263 ATCCTGATAAAGAGTTATGCCAATGATAAGGGGACCTATGGAGATGTTCTCTGTATAAGC 322
                                                                                                                                                                                                                                                                                                                                               323 AACCGATATGTGCTTCACACCAACCTCTACACCAGCATCCTCTTCCTCACTTTCATTAGC 382
                                                                                                                                                                                                                                                                                                                                                                                         591 TCTGGAACTGCATTCCTTACCAACATCTATGGGAGCATGCTCTTTCTCACCTGTATTAGT 650
                                                                                                                                                                                                                                                                                                                                                                                                                                    383 ATGGACCGATATCTGCTCATGAAGTACCCTTTCCGAGAACACTTTCTACAAAAGAAGGAA 442
                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT: Coleman, Roger
APPLICANT: Coleman, Poung, Janice
APPLICANT: Stuart, Susan G.
TITLE OF INVENTION: A No. 6008039el Human Purinergic P2U Receptor
NUMBER OF SEQUENCES: 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/459,046
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   711 AATTCTGCCATTGTGTGCTGCTGTCTGGATCCTAGT 748
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            443 TTTGCCATTTTAATCTCGCTGCTGTCTGGGCCTTAGT 480
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COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
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Patent No. 6008039
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TELECOMMUNICATION INFORMATION:
TELEPHONE: 415-855-0555
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NAME: Luther, Barbara J. REGISTRATION NUMBER: 33954
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CLASSIFICATION: 435
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TELEFAX: 415-852-0195
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
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CLONE: 179696
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COMPUTER READABLE FORM:
MEDIUM TYPE: FLOPPY
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LOCATION: 161..1192
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                                                                                                                                      NUMBER OF SEQUENCES:
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APPLICANT:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         269 ATAAAGAGTTATGCCAA---TGATAAGGGGACCTATGGAGATGTTCTCTGTATAAGCAAC 325
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                                                                                                                                                                                     149 GGGAATGTCACTGTGGTGTTCGGCTACCTCTTCTGCATGAAGAACTGGAACAGCAGCAGT 208
                                                                                                                                                                                                                        127 CTGAACATCTGTGTCATTACCCAGATCTGCACGTCCCGGGCCCTGACCCGCACGGCC 186
                                                                                                                                                                                                                                                                209 GICTATCTITITAACCTITCCATCTCTGACTTTGCTTTCCTGTGCACCCTTCCCATCCTG 268
                                                                                                                                                                                                                                                                                            89 ATCITGAATAAGTACTACCTCTCTGCATTTTATGCAATCGAGTTCATTTTTGGACTGCTT 148
                                                                                                                                             Match 4.8%; Score 74.8; DB 3; Length 984;
Local Similarity 45.6%; Pred. No. 2.1e-11;
es 385; Conservative 0; Mismatches 447; Indels 12; Gaps
                                                                                                                                                                                                                                                                                                                                                                   Sequence 7, Application US/08467948A Patent No. 5998164
                                                                   Matches 385; Conservative
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APPLICANT: LI, YI
APPLICANT: CAO, LIANG
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                               Query Match
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356 TITGITITIACTTTACCCTTCAGGATTTTTTACTTCACAACAGGAATTGGCCATTTGGA 415
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                                                                                                          APPLICANT: ROSEN, CRAIG A. TITLE OF INVENTION: Polynucleotides Encoding Human G-Protein TITLE OF INVENTION: Coupled Receptor GPR2
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Best Local Similarity 49.9%; Pred. No. 3.6e-11;
Matches 187; Conservative 0; Mismatches 188; Indels
                                                                                                                                                                                                                                      E: STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C. 1100 NEW YORK AVE., NW, SUITE 600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PATENTIN RELEASE #1.0, VERSION #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/467,948A
FILING DATE: 06-JUN-1995
CLASSIFICATION: 47
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1488.1140003/EKS/KLM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICATION NUMBER: PCT/US95/04079
FILING DATE: 30-MAR-1995
ATTORNEY/AGENT INFORMATION:
NI, JIAN
GENTZ, REINER
BULT, CAROL J.
SUTTON III, GRANGER G.
ROSEN, CRAIG A.
                                                                                                                                                                                                                                                                                                                                                                                                               COMPUTER: FLOPPY DISK COMPUTER: IBM PC COMPATIBLE OPERATING SYSTEM: PC-DOS AMONGO TO THE COMPUTER OF THE COMP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NAME: STEFFE, ERIC K.
RECISTRATION NUMBER: 36,688
REFERENCE/DOCKET NUMBER: 146
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TELEPHONE: 202-371-2600
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LENGTH: 1301 base pairs
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356 TITGTTTTACTTTACCCTTCAGGATTTTTACTTCACAACACGGAATTGGCCATTTGGA 415
                                                                305 GATGTICTCTGTATAAGCAACCGATATGTGCTTCACACCAACCTCTACACCAGCATCCTC 364
                                                                                                            365 TICCTCACTITCATTAGCATGGACCGATATCTGCTCATGAAGTACCCTTTCCGAGAACAC 424
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TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ADDRESSEE: Sterne, Kessler, Goldst
STREET: 1100 New York Avenue, N.W.
STREET: Suite 600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      US/08/383,750
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NAME: Fox, Samuel, L.
REGISTRATION NUMBER: 30,353
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TELEFAX: (202) 371-2540
INFORMATION FOR SEQ ID NO: 3:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         596 GGAGGAAGTGCACCC 610
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                            485 TTAGAAGTTCTACCC 499
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RY: U.S.A.
20005-3934
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Matches 255; Conserv
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               STRANDEDNESS:
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APPLICANT: BULT, CARGL J.
APPLICANT: SUTTON III, GRANGER G.
APPLICANT: ROSEN, CRAIG A.
TITLE OF INVENTION: Polynucleotides Encoding Human G-Protein
TITLE OF INVENTION: Coupled Receptor GFR1
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49.9%; Pred. No. 3.6e-11;
tive 0; Mismatches 188; Indels 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ADDRESSEE: STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C. STREET: 1100 NEW YORK AVE., NW, SUITE 600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PATENTIN RELEASE #1.0, VERSION #1.30
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1488.1140002/EKS/KLM
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                                                                                                                                                                                                                                      Sequence 7, Application US/08467947A Patent No. 6090575
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IBM PC COMPATIBLE
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REGISTRATION NUMBER: 36,688
REFERENCE/DOCKET NUMBER: 14
TELECOMMUNICATION INFORMATION:
TELEPHONE: 202-371-2600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TELEFAX: 202-371-2540 INFORMATION FOR SEQ ID NO: 7:
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             485 TTAGAAGTTCTACCC 499
                                                                       596 GGAGGAAGTGCACCC 610
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Matches 187; Conservative
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CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                    GENERAL INFORMATION:
APPLICANT: LI, YI
APPLICANT: CAO, LIANG
APPLICANT: NI, JIAN
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MEDIUM TYPE: FLOPPY
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LOCATION: 161..1192
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STRANDEDNESS: both
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                                                                                                                                                                      RESULT 11
US-08-467-947A-7
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US-08-467-947A-7
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STATE:
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425 ITICIACAAAAGAAGAATITGCCAITTTAATCICGCIGGCIGTCIGGGCCTIAGIGACC 484
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                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT: Birkenbach, Mark
APPLICANT: Kieff, Elliot
TITLE OF INVENTION: Epstein Barr Virus Induced Genes
NUMBER OF SEQUENCES: 8
CORRESPONDENCE ADDRESS:
ADDRESSEE: Sterne, Kessler, Goldstein & Fox
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              OPERATING SYSTEM: PC_DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
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303 GAGATGTTCTCTGTATAAGCAACCGATATGTGCTTCACACCAACCTCTACACACCAGCATCC 362
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212 GGAAAAAAATCAACTCTACCACCTCTATTCAACAAATTTGGTGATTTCTGATATACTTT 271
                                                246 TCCTGTGCACCCTTCCCATCCTGATAAAGAGTTATGCCAATG---ATAAGGGGACCTATG 302
                                                                            363 TCTTCCTCACTTTCATTAGCATGGACCGATATCTGCTCATGAAGTACCCTTTCCGAGAAC 422
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APPLICANT: Kieff, Elliott
TITLE OF INVENTION: EPSTEIN BARR VIRUS INDUCED GENES
NUMBER OF SEQUENCES: 6
CORRESSONDENCE ADDRESS:
ADDRESSEE: Wolf, Greenfield & Sacks, P.C.
STREET: 600 Atlantic Avenue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SOFTWARE: Patentin Release #1.0, Version #1.25 CURRENT APPLICATION DATA:
                                                                                                                                                                   NAME: Gates, Edward R.
REGISTRATION NUMBER: 31,616
REFERENCE/DOCKET NUMBER: B0801/7044
TELECOMMUNICATION INFORMATION:
TELEPHONE: 617-720-3500
TELEFAX: 617-720-2441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/980,518
FILING DATE: 25-NOV-1992
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICATION NUMBER: US/08/352,678 FILING DATE: 30-NOV-1994
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC COMPATIBLE
OPERATING SYSTEM: PC-DOS/MS-DOS
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TYPE: nucleic acid
STRANDEDNESS: double
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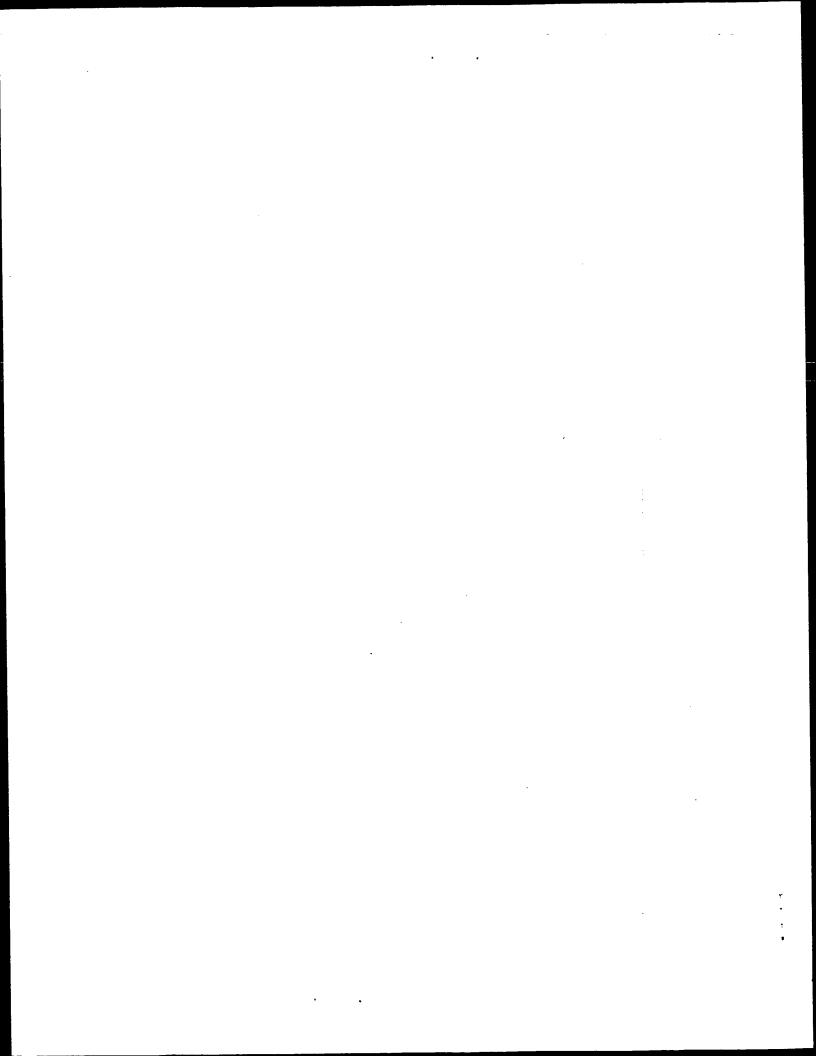
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483 CCTTAGAAGITCTACCCATGCTCACTTTCATCAATTCTGTCCCAAAAGAAGAGGGCAGTA 542
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Best Local Similarity 47.4%; Pred. No. 4.6e-11;
Matches 255; Conservative 0; Mismatches 280; Indels
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APPLICANT: Kieff, Elliot
TITLE OF INVENTION: Epstein Barr Virus Induced Genes
WUMBER OF SEQUENCES: 6
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: PCT/US93/09636
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          STREET: 1100 New York Avenue N.W., Suite 600 CITY: Washington STATE: D.C.
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(202) 371-2540
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COCATION:
US-08-352-678-3
NAME/KEY:
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                                                                                                                                                                                                        4.8%; Score 74; DB 5; Length 1643; 47.4%; Pred. No. 4.6e-11; ive 0; Mismatches 280; Indels
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APPLICANT: DEMARTINO, JULIE A.
APPLICANT: SICILIANO, SALVATORE J.
APPLICANT: SPRINGER, MARTIN J.
TITLE OF INVENTION: EOSINOPHIL EOTAXIN RECEPTOR
NUMBER OF SEQUENCES: 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ADDRESSEE: Merck & Co., Inc.
STREET: P.O. Box 2000, 126 E. Lincoln Ave.
CITY: Rahway
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INFORMATION FOR SEQ ID NO: 3:
SEQUENCE CHARACTERISTICS:
LENGTH: 1643 base pairs
TYPE: nucleic acid
STRANDEDNESS: both
                                                                                                                                                                                                                            47.48;
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                                                                                                                                                                                                        Query Match
Best Local Similarity 47.4
Matches 255; Conservative
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                                                                                                                                                    34..1116
                                                                                            TOPOLOGY: linear
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ZIP: 07065-0900
                                                                                                                                 NAME/KEY: CDS
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PCT-US93-09636-3
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                                                                                                                FEATURE:
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117 TITATGCAATCGAGTTCATTTTTGGACTGCTTGGGAATGTCACTGTGGTGTTCGGCTACC 176
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            SOFTWARE: FastSEQ for Windows Version 2.0 CURENT APPLICATION DATA:
APPLICATION WHERE: US/08/847,296B
FILLING DATE: 24-APR-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Search completed: April 2, 2003, 15:13:46 Job time: 79 secs
                                                                                                PRIOR APPLICATION DATA:
APPLICATION NUMBER: 60/016,158
                                                                                                                                   FILING DATE: 26-APR-1996
APPLICATION NUMBER: 60/017,113
                                                                                                                                                                                                     . Eric
----- 35,382
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TELEPHONE: 908-594-3904
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match 4.8%;
Best Local Similarity 48.9%;
Matches 198; Conservative
                                                                                                                                                                        FILING DATE: 26-APR-1996
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                                                                                      1065 base pairs
DOS
                                                                                                                                                                                                                                                                                                                                                     SEQUENCE CHARACTERISTICS:
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INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                       TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                         NAME: Thies, J. Eric
REGISTRATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                         ; MOLECULE TYPE: CDNA
US-08-847-296B-2
OPERATING SYSTEM:
                                                                                                                                                                                                                                                                                                                                                                                                                            linear
                                                              FILING DATE: 24
CLASSIFICATION:
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GenCore version 5.1.3
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OM nucleic - nucleic search, using sw model

April 2, 2003, 13:02:01; Search time 154 Seconds (without alignments) . 8788.765 Million cell updates/sec Run on:

Perfect score:

US-09-891-138A-1 1543 1 gctcctggcagagttttctg--------tgcctaaataaatcaatata 1543 Sequence:

Scoring table:

IDENTITY\_NUC Gapop 10.0 , Gapext 1.0

1186858 Total number of hits satisfying chosen parameters: 593429 seqs, 438583890 residues Searched:

Minimum DB seq length: 0 Maximum DB seq length: 200000000

Post-processing: Minimum Match 0% Maximum Match 100% Listing first 45 summaries

/cgn2\_6/ptodata/2/pubpna/US10\_PUBCOMB.seq:\*/cgn2\_6/ptodata/2/pubpna/US60\_NEW\_PUB.seq:\*/cgn2\_6/ptodata/2/pubpna/US60\_PUBCOMB.seq:\* \_6/ptodata/2/pubpna/US10\_NEW\_PUB.seg:\* Database :

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Sequence 3, Appli Sequence 1, Appli Sequence 1, Appli Sequence 9, Appli Sequence 10, Appl Sequence 11, Appl Sequence 22, Appl Sequence 7, Appli Sequence 8, Appli Sequence 3, Appli Sequence 18, Appl Sequence 1, Appli Sequence 3, Appli Sequence\_1, Appli Sequence 1 Description 0 US-09-728-422-1 0 US-09-728-422-1 0 US-09-943-798-1 0 US-09-905-186A-9 US-09-905-186A-10 US-10-087-345A-22 US-10-087-345A-22 US-09-943-798-3 US-10-270-144-3 US-10-023-775B-1 US-10-112-599A-3 US-09-905-186A-8 US-10-270-587-1 US-10-270-144-1 Query Score Match Length DB ID 110 00 00 00 00 00 00 00 831 1805 1829 1829 1829 2534 1829 1829 82.2 82.2 82.2 82.2 82.2 80.6 80.6 Result

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Sequence 1, Appli Sequence 7, Appli Sequence 2, Appli

US-10-905-186A-1 US-10-024-494-7

77.6 76.4 74.2 73.8

US-09-922-895-2

Sequence 15, Appl Sequence 29, Appl Sequence 29, Appl Sequence 29, Appl Sequence 29, Appl Sequence 19, Appl Sequence 3, Appl Sequence 267, Appl Sequence 267, Appl Sequence 145, Appl Sequence 145, Appl Sequence 1588, Appl Sequence 1588, Appl Sequence 1588, Appl Sequence 1588, Appl Sequence 15, Appl Sequence 11, Appl Sequence 15, Appl Sequence 11, Appl Sequence
US-09-931-381A-15 US-09-964-82AA-100 US-10-106-623-3 US-09-214-904-3 US-09-214-904-3 US-10-112-5948-296 US-09-967-768A-296 US-09-967-768A-296 US-09-940-240-19 US-09-940-240-19 US-09-940-240-17 US-09-940-240-17 US-09-940-240-17 US-09-917-828-3 US-09-917-88-3 US-09-954-4456-958 US-09-954-4456-968 US-09-954-4456-1588 US-09-954-4456-1588 US-09-954-456-1588
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## ALIGNMENTS

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99 AGTACTACCTCTCTGCATTTTATGCAATCGAGTTCATTTTTGGACTGCTTGGGAATGTCA 158
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                                                                                                 APPLICANT: Li, Yi
TILE OF INVENTION: Human G-Protein Coupled Receptor
FILE OF INVENTION: Human G-Protein Coupled Receptor
FILE OF INVENTION: Human G-Protein Coupled Receptor
CURRENT APPLICATION NUMBER: US/10/270,587
CURRENT FILING DATE: 2001-01-6
PRIOR FILING DATE: 2001-07-20
PRIOR FILING DATE: 2001-07-20
PRIOR FILING DATE: 1997-01-10
PRIOR FILING DATE: 1997-01-10
PRIOR FILING DATE: 1996-01-11
NUMBER OF SEQ ID NOS: 9
SOFTWARE: PATENTIN VETSION 3.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 38.3%; Score 590.8; DB 9; 75.2%; Pred. No. 2.5e-135; tive 0; Mismatches 247;
                                         Sequence 1, Application US/10270587
Publication No. US20030054487A1
GENERAL INFORMATION:
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RESULT 1
US-10-270-587-1
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ORGANISM: Human
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APPLICANT WEI, MING-Hui et al
APPLICANT WEI, MING-Hui et al
TITLE OF INVENTION: RECEPTORS, NUCLEIC ACID MOLECULES ENCODING HUMAN GPCR
TITLE OF INVENTION: PROTEINS, AND USES THEREOF
FILE REFERENCE: CLO00750CON
CURRENT APPLICATION NUMBER: US/10/270,144
CURRENT APPLICATION NUMBER: 60/205,196
PRIOR APPLICATION NUMBER: 60/205,196
PRIOR FILING DATE: 2000-05-18
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     279 TTAACCICTCTGTCTGACTIAGCTTTTCTGTGCACCCTCCCCATGCTGATAAGGAGTI 338
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SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 1
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Length 1014;
     8.2%; Score 126.6; DB 9; Length 49.9%; Pred. No. 2.9e-21; tive 0; Mismatches 369; Indels
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TITLE OF INVENTION: Polypeptide
FILE REFERENCE: 0G1021
CURRENT APPLICATION NUMBER: US/09/943,798
CURRENT FILING DATE: 2001-08-31
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                                                          Matches 377; Conservative
                                     Similarity
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Publication No. US20030049790A1
GENERAL INFORMATION:
APPLICANT: WEI, Ming-Hui et al
TITLE OF INVENTION: ISOLATED HUMAN G-PROTEIN COUPLED
TITLE OF INVENTION: RECEPTORS, NUCLEIC ACID MOLECULES ENCODING HUMAN GPCR
FILE REFERENCE: CL000750CON
                                                                                                                                                                        60 CTTGTGAGAATTGGTTGGCAACAGAGGCTATCTTGAATAAGTACTACCTCTGCATTTT 119
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                                                                                                      8.2%; Score 126.6; DB 10; Length
49.9%; Pred. No. 2.9e-21;
tive 0; Mismatches 369; Indels
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                                                                                                                                         Matches 377; Conservative
                                  TYPE: DNA
ORGANISM: Homo sapiens
                                                                                                                        Sest Local Similarity
                  LENGTH: 1014
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SEQ ID NO 3
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                                                                                                                                                                                                                                                                 Query Match 8.2%; Score 126.6; DB 9; Length 9905; Best Local Similarity 49.9%; Pred. No. 1e-20; Matches 377; Conservative 0; Mismatches 369; Indels 9;
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CURRENT APPLICATION NUMBER: US/10/270,144
CURRENT FILING DATE: 2002-10-15
PRIOR APPLICATION NUMBER: 60/205,196
PRIOR FILING DATE: 5000-05-18
NUMBER OF SEQ ID NOS: 7
SOFTWARE: FastSEQ for Windows Version 4.0
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                                                                                                                                                                                                ; ORGANISM: Human
US-10-270-144-3
                                                                                                                               SEQ ID NO 3
LENGTH: 9905
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US-09-728-422-1
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LOCATION: (547
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GENERAL INFORMATION:
APPLICANT: Pfizer Ltd. (EP(GB) only)
APPLICANT: Pfizer Ltd. (US, JP, EB except GB);
APPLICANT: Pfizer Inc. (US, JP, EB except GB);
APPLICANT: Pfizer No. US20030022282Alel Polypeptide
TITLE OF INVENTION: No. US20030022282Alel Polypeptide
TITLE OF INVENTION: NO. US2003002282Alel Polypeptide
CURRENT APPLICATION NUMBER: US/10/023,775B
CURRENT FILING DATE: 2001-12-18
PRIOR FILING DATE: 2001-12-18
PRIOR FILING DATE: 2001-01-09
PRIOR APPLICATION NUMBER: US 60/266,660
PRIOR APPLICATION NUMBER: US 60/296,660
PRIOR FILING DATE: 2001-06-07
PRIOR FILING DATE: 2001-05-04
NUMBER OF SEQ ID NOS: 4
SOSTWARE: PatentIn version 3.1
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Best Local Similarity 49.8%;
Matches 376; Conservative (
                                                                                                                                                                                                                                                                                                                                                                TYPE: DNA
ORGANISM: Homo sapiens
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                                                                                                                                                                                                                                                                                                                              SEO ID NO 1
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417 GAGAACACTITCIACAAAAGAAGGAATTIGCCAITITAAICICGCIGGCIGICIGGGCCT 476
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297 CCTATGGAGATGTTCTCTGTATAAGCAACCGATATGTGCTTCACACCAACCTCTACACCA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT: Drmanac, Radoje T.
TITLE OF INVENTION: No. US20020128187Alel Nucleic Acids and
TITLE OF INVENTION: Polypeptides
FILE REFERENCE: 787CIP2F
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          260; Indels
                                                                              777 ATATCATGCGCAATTTGAGGATCGCCTCACGCCTG 811
                                                                                                         0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CURRENT APPLICATION NUMBER: US/09/728,422
CURRENT FILING DATE: 2000-11-30
PRIOR APPLICATION NUMBER: 09/560,875
PRIOR FILING DATE: 2000-04-27
PRIOR APPLICATION NUMBER: 09/496,914
PRIOR FILING DATE: 2000-02-03
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NUMBER OF SEQ ID NOS: 10
SOFWARE: pt_FL_genes Version 2.0
SEQ ID NO 1
LENGTH: 1313
                                                                                                                                                                                                                                                       ; Sequence 1, Application US/09728422 ; Patent No. US20020128187A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Wehrman, Tom
Drmanac, Radoje T.
                                                                                                                                                                                                                                                                                                                           APPLICANT: Tang, Y. Tom
APPLICANT: Zhou, Ping
APPLICANT: Coodtich, Ryle
APPLICANT: Liu, Chenghua
APPLICANT: Ren, Felyan
APPLICANT: Zhao, Qing A.
APPLICANT: Yang, Yonghong
APPLICANT: Yang, Yonghong
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Best Local Similarity 52.3%
Matches 288; Conservative
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722 CAACGCCTGGTGGTCCTGGCGGTTGTGATCTTCTGTATACTCTTCACACCCTATCATATC 781
                                                   535 CGAAGGCTAACCATTCTGCTACTCCTTGCATTTTACGTATGTTTTTACCCTTCCATATC 594
                                                                                                                                                                                                                                                                                              APPLICANT: EVANS, CHRISTOPHER J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FILING DATE: 29-Mar-2001
CLASSIFICATION: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                    Sequence 18, Application US/09823114 Patent No. US20020061554A1 GENERAL INFORMATION:
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MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LENGTH: 1805 base pairs
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STRANDEDNESS: double
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                                                                                                                                                                                                                                                                                                                                                                                                                                 CITY: WASHINGTON
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Matches 379; Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                        COUNTRY: USA
ZIP: 20006-1888
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                                                                    1025 TITCACTEGIAGCTGTCATICCGAIGACCTICTIGATCACATCAACAACAACAACA 1084
965 GCTGCTTTTCCATTCACAAAACTCGATGTGCAGTTGTAGCCTGTGCTGTGGTGGATCA 1024
                                                                                                                                                       1085 GATCAGCCTGTCTCGCCTCACCAGTTCGGATGAACTCAATACTATTAAGTGGTACAACC 1144
                                         477 TAGTGACCTTAGAAGTTCTACCCATGCTCACTTTCATCAATTCTGTCCCAAAAGAAGAGG 536
                                                                                                                    537 GCAGTAACTGCATCGACTATGCAAGTTCTGGAAACCCTGAACACAATCTCATTTACAGCC 596
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GGAGATGTTCTCTGTATAAGCAACCGATATGTGCTTCACACCAACCTCTACACCAGCATC 361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              362 CTCTTCCTCACTTTCATTAGCATGGACCGATATCTGCTCATGAAGTACCCTTTCCGAGAA 421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           422 CACTITCTACAAAAGAAGGAATTIGCCAITITAAICICGCIGGCTGGTCIGGCCTIAGIG 481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          241 TTTCCATTCACAAAACTCGATGTGCAGTTGTAGCCTGTGCTGCGTGTGGATCATTCA 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   542 AACTGCATCGACTATGCAAGTTCTGGAAACCCTGAACACAATCTCATTTACAGCCTCTGC 601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CIGACITIGITGGGCTTCCTAATICCTCTCTGTGATGTGCTTCTTCTACTACAAGATG 661
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0; Mismatches 310; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                        CURRENT APPLICATION NUMBER: US/09/943,798
CURRENT FILING DATE: 2001-08-31
NUMBER OF SEQ ID NOS: 4
SOFTWARE: FastSEQ for Windows Version 3.0
SEQ ID NO 1
                                                                                                                                                                                                                                                                                                                                          Sequence 1, Application US/09943798
Patent No. US20020065215A1
                                                                                                                                                                                                                                                                                                                                                                           GENERAL INFORMATION:
APPLICANT: Glass Group Limited
TITLE OF INVENTION: Polypeptide
FILE REFERENCE: QG1021
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SOFTWARE: Patentin Release #1.0, Version #1.30 CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/823,114
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      5.3%; Score 82.2; DB 10; 44.5%; Pred. No. 3.4e-10;
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                                                                                                                                                                                                                                                                                                      KEITH, DUANE E. TITLE OF INVENTION: OPIOID RECEPTOR GENES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         OPERATING SYSTEM: PC-DOS/MS-DOS
                                       595 TTGAGGGTCATTCGGATCGAATCTCGCCTG 624
782 ATGCGCAATTTGAGGATCGCCTCACGCCTG 811
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICATION NUMBER: 09/148,351
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             COMPUTER: IBM PC compatible
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REGISTRATION NUMBER: 29,959
REFERENCE/DOCKET NUMBER: 220
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TELEFAX: (202) 887-0763
TELEX: 90-4030 MRSNFOERSWSH
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Best Local Similarity
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US-09-905-186A-10
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APPLICANT: Kreek, Mary Jeanne
APPLICANT: Laforge, Karl Steven
APPLICANT: Laforge, Karl Steven
TITLE OF INVENTION: Alleles of the Human Orphanin
TITLE OF INVENTION: Alleles of the Human Orphanin
TITLE OF INVENTION: Alleles, and Methods of Treatment Based Thereon
FILE REFERENCE: 600-1-284N
CURRENT FILING DATE: 2001-10-19
PRIOR APPLICATION NUMBER: US 60/218,205
PRIOR FILING DATE: 2000-07-14
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                                                                                              625 TCCTCTCTCTGTGATGTGCTTCTTCTACTACAAGATGGTAGTCTTCTTAAAGAGGAGGAG 684
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                                      327 ccadegecacedesacarcerecedecrreresecerrressaarececrerecaagacagr 386
                                                                                                                                                   385 GGACCGATATCTGCTCATGAAGTACCCTTTCCGAGAACACTTTCTACAAAAGAAGGAATT 444
     265 CCTGATAAAGAGTTATGCCAATGATAAGGGGACCTATGGAGATGTTCTCTGTATAAGCAA 324
                                                                              325 CCGATATGTGCTTCACACCAACCTCTACACCAGCATCCTCTTCCTCACTTCATTAGCAT
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APPLICANT: Kreek, Mary Jeanne
APPLICANT: LaForge, Karl Steven
TITLE OF INVENTION: Allales of the Human Orphanin
TITLE OF INVENTION: FQ/No. US200300008289Aliceptin Receptor Gene, Diagnostic Metho
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Pred. No. 3.4e-10;
0: Mismatches 463; Indels
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44.5%;
                             379; Conservative
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TITLE OF INVENTION: Alleles, and Methods of Treatment Based Thereon FILE REFERENCE: 600-1-284N CURRENT APPLICATION NUMBER: US/09/905,186A
                                                                                                                                                                                                                                                                                                            Query Match 5.3%; Score 82.2; DB 9; Length 1829; Best Local Similarity 44.5%; Pred. No. 3.4e-10; Matches 379; Conservative 0; Mismatches 463; Indels 9
                                                              CURRENT FILING DATE: 2001-10-19
PRIOR APPLICATION NUMBER: US 60/218, 205
PRIOR FILING DATE: 2000-07-14
NUMBER OF SEQ ID NOS: 11
SOFTWARE: FastSEQ for Windows Version 4.0
                                                                                                                                                                                                                       TYPE: DNA
ORGANISM: homo sapiens
                                                                                                                                                             SEQ ID NO 10
                                                                                                                                                                                                                                                ; ORGANISM: noun
US-09-905-186A-10
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APPLICANT: Kreek, Mary Jeanne
APPLICANT: Excek, Mary Jeanne
APPLICANT: LaForge, Karl Steven
TITLE OF INVENTION: Alleles of the Human Orphanin
TITLE OF INVENTION: Alleles of the Human Orphanin
TITLE OF INVENTION: Alleles, and Methods of Treatment Based Thereon
FILE REFERENCE: 600-1-284N
CURRENT APPLICATION NUMBER: US/09/905,186A
PRIOR APPLICATION NUMBER: US 60/218,205
PRIOR PILING DATE: 2000-07-18,
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14.5%; Pred. No. 3.4e-10;
Ive 0; Mismatches 463; Indels 9
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SOFTWARE: FastSEQ for Windows Version 4.0
                                                                                                                Sequence 11, Application US/09905186A Publication No. US20030008289A1 GENERAL INFORMATION:
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1002 TGAGAACTTCA 1012
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                                                                                     US-09-905-186A-11
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LENGTH: 1829
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                                        771 CCTGCTCTCGGGCTCCCGAGAGGACCGGAACCTGCGGCGCATCACTCGGCTGGTGCT 830
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685 CCAGCAGCAAGCAACTGCCCTGCCACTGGACAAACCCCAACGCCTGGTGGTCCTGGCGGT 744
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TITLE OF INVENTION: ORPHANIN FQ RECEPTOR NUCLEIC ACIDS
TITLE REFERENCE: UM-06962
CURRENT APPLICATION NUMBER: US/10/087,345A
CURRENT FILING DATE: 2002-03-01
NUMBER OF SEQ ID NOS: 36
SOFTWARE: Patentin version 3.0
SEQ ID NO 22
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ; Sequence 22, Application US/10087345A; Publication No. US20030045696A1; GENERAL INFORMATION:
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US-10-087-345A-22
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APPLICANT: Kreek, Mary Jeanne
APPLICANT: LaForge, Karl Steven
TITLE OF INVENTION: Alleles of the Human Orphanin
TITLE OF INVENTION: FQ/No. US20030008289Ailceptin Receptor Gene, Diagnostic Metho
TITLE OF INVENTION: FQ/No. US20030008289Ailceptin Receptor Gene, Diagnostic Metho
TITLE OF INVENTION: Alleles, and Methods of Treatment Based Thereon
FILE REFERENCE: 600-1-284N
CURRENT APPLICATION NUMBER: US/09/905,186A
CURRENT FILING DATE: 2001-10-19
PRIOR FILING DATE: 2000-07-14
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675 CATCATGGGCTCGGCACAGGTCGAGGATGAAGAGATCGAGTGCCTGGTGGAGATCCCTAC 734
                                           565 IGGAAACCCIGAACACAATCICATTTACAGCCICIGCCIGACTTIGIIGGGCIICCIAAI 624
                                                                                    735 CCCTCAGGATTAC1GGGGCCCGGTGTTTGCCATCTGCATCTTCCTCTTCTTCTTCATCGT 794
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Similarity 44.48; Pred. No. 8.4e-10;
78; Conservative 0; Mismatches 464; Indels 9.
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Publication No. US20030008289A1
GENERAL INFORMATION:
APPLICANT: LaForge, Mary Jeanne
APPLICANT: LaForge, Karl Steven
TITLE OF INVENTION: Alleles of the Human Orphanin
TITLE OF INVENTION: Alleles and Methods of Treatment Based Thereon
CURRENT APPLICATION NUMBER: US/09/905,186A
PRIOR APPLICATION NUMBER: US 60/218,205
PRIOR APPLICATION NUMBER: US 60/218,205
PRIOR PILING DATE: 2000-07-14
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                          325 CCGATATGTGCTTCACACCAACCTCTACACCAGCATCCTCTTCCTCACTTTCATTAGCAT 384
                                                                     GGACCGATATCTGCTCATGAAGTACCCTTTCCGAGAACACTTTCTACAAAAGAAGGAATT 444
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5.2%; Score 80.6; DB 9; Length 1
Best Local Similarity 44.4%; Pred. No. 8.4e-10;
Matches 378; Conservative 0; Mismatches 464; Indels
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NUMBER OF SEQ ID NOS: 11
SOFTWARE: FastSEQ for Windows Version 4.0
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ORGANISM: homo sapiens
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US-09-905-186A-8
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LENGTH: 1829
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145 GCTTGGGAATGTCACTGTGGTGTTCGGCTACCTCTTCTGCATGAAGAACTGGAACAGCAG 204
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Patent No. US20020019026A1
GAPENRAL INFORMATION.
APPLICANT: Soppet, Daniel R.
APPLICANT: Yi, Li
APPLICANT: Ruben, Steven M.
APPLICANT: Rosen, Craig A.
TITLE OF INVENTION: HUMAN G-PROTEIN RECEPTOR HGBER32
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Pred. No. 1.1e-09;
0; Mismatches 305; Indels
ADDRESSEE: CARELLA, BYRNE, BAIN, GILFILLAN, CECCHI, ADDRESSEE: STUART & OLSTEIN STREET: 6 Becker Farm Road
                                                                                                                                                                                                                                                                                                                                                                                                           COMPUTER: IEM PC compatible
COMPUTER: IEM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/104,792
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CLASSIFICATION:
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US/08/461,244
FILING DATE: 05-JUN-1995
ATTORNEY,AGENT INFORMATION:
NAME: Ferraro, Gregory D.
REGISTRATION NUMBER: 36,134
REFRERENCE/DOCKET NUMBER: 325800-445
TELECOMMUNICATION INFORMATION:
TELEPHONE: 201-94-1700
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TELEFRX: 201-994-1744
INFORMATION FOR SEQ ID NO: 1:
SEQUENCE CHARACTERISTICS:
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Best Local Similarity 47.3%;
Matches 276; Conservative (
                                                                                                                                                                                                                                                                                                                                                                         Floppy disk
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STRANDEDNESS: single
TOPOLOGY: linear
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LOCATION: 431..1495
US-09-104-792-1
                                                                                                                                                                                         STATE: New Jersey
COUNTRY: USA
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                                                                                                                                                        Roseland
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FILING DATE:
                                                                                                                                                                                                                                                                                    07068
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OY 578 CACAATCTCATTTACAGCCTCTGACTTTGTTGGGCTTCCTAATTCCTCTCTGTG 637

Db 1010 TGGAAGATCTTCACCAACTTCAAAATGAACATTTAGGCTTGTTGATCCCATTCACCATC 1069

OY 638 ATGTGCTTCTTCTACTACAAGATGGTAGTCTTCTTAAAGAGGAG 681

Db 1070 TTATGTTCTGCTACATTAAAATCTGCACCAGGTGAAGAGGTG 1113

Search completed: April 2, 2003, 15:16:37

Job time: 170 secs
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GenCore version 5.1.3
Copyright (c) 1993 - 2003 Compugen Ltd.
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OM nucleic - nucleic search, using sw model

Run on:

April 2, 2003, 12:17:26 ; Search time 2695 Seconds (without alignments) 9272.592 Million cell updates/sec

1 getectggcagagttttetg.....tgcctaaataaatcaatata 1543 US-09-891-138A-1 Perfect\_score:\_ Sequence: Title:

IDENTITY\_NUC Gapop 10.0 , Gapext 1.0 Scoring table:

32308132 Total number of hits satisfying chosen parameters:

16154066 seqs, 8097743376 residues

Searched:

Minimum DB seq length: 0 Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing\_first 45 summaries

em\_esthum:\* em\_estin:\* em\_estmu:\* gb\_est3:\*
gb\_est4:\*
gb\_est5:\* .-em\_estba:\* em\_estov:\* em\_estpl:\* em\_estro:\* gb\_est2:\* gb\_htc:\* gb\_est1:\* em\_htc:\* EST: \* Database :

em\_gss\_other:\* em\_gss\_inv:\* em\_gss\_pln:\* em\_gss\_mam:\* em\_gss\_mus:\* em\_gss\_hum:\* em\_gss\_vrt:\* em\_gss\_fun:\* em\_gss\_pro:\* em\_estfun:\* em\_estom:\* gb\_gss: 15: 116: 117: 118: 118: 221: 224: 226: Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

em\_gss\_rod:\*

Description	BB323771 AI663305 uk27c10.y BB744515 BB744515 BB746222 BB746222 BB738743 BB738743 BB847918 BB847918
SUMMARIES	BB32371 A1663305 BB744515 BB74622 BB738743 BB847918
DB	10 10 10 10
Length	683 520 469 458 428 422
% Query Match	36.3 32.1 29.5 28.4 26.8
& Query Score Match Length DB II	560 495.8 455 438 414 403.8
Result No.	H 0 K 4 L 0

8882 587 482 54 574 608	2029 1869 0888 5749 0452	7439 3174 3575 3575 1521 5653 3898	317 BB2 317 BB2 565 Tet 568 MC1 141 hg9 559 Tet 577 Tet 739 hr5	AL675845 AL675845 BQ396255 NISC
0 BB864882 0 BB778587 0 BB739482 AI649254 0 BB846608	2 BG402029 0 BB254869 0 BB225749 0 BB500452 0 BB500452	0 BB32.439 0 BB498.75 0 BB22.1521 0 BB2.1553 0 BB2.1563 0 BB49899 7 CNSOAVV3	0 BE213317 7 CNSO28Y4 0 AW1121068 0 AW612141 7 CNSO51MY 2 BF196066 7 CNSO4W90 0 BE221739 AIO21184	AL67545 AL63625 AL62625 AL62625 AR05013 AR005013 BR0552112 BR0552112 A BR07763 BR075063 BR075063 BR075063 BR075063
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## ALIGNMENTS

BB32371 RIKEN full-length enriched, 4 days neonate male adipose Mus musculus cDNA clone B430012021 3', mRNA sequence. Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Manmalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus. 1 (bases 1 to 68)
Arakawa.T., Carninci,P., Fukuda,S., Furuno,M., Hanagaki,T., Hara,A., Hiramoto,K., Hori,F., Ishii,Y., Ito,M., Kawai,J., Konno,H., Kouda,M., Koya,S., Matsuyama,T., Miyazati,A., Nomura,K., Ohno,M., Okazaki,Y., Okido,T., Saito,R., Sakai,C., Sakai,K., Sano,H., Sasaki,D., Shibata,K., Shinagawa,A., Shiraki,T., Sogabe,Y., Suzuki,H., Tagama,M., Tagawa,A., Takahashi,F., Takeda,Y., Tanaka,T., Toya,T., RIKEN Mouse ESTS (Arakawa,T., et al. 2001) Laboratory for Genome Exploration Research Group, RIKEN Genomic Sciences Center(GSC), Yokohama Institute
The Institute of Physical and Chemical Research (RIKEN)
1-7-22 Suchiro-cho, Tsurumi-ku, Yokohama, Kanagawa 230-0045, Japan Tel: 81-45-503-9222 Unpublished (2001) On Jul 11, 2000 this sequence version replaced gi:9032085. Contact: Yoshihide Hayashizaki BB323771.2 GI:15411432 Mus musculus house mouse. DEFINITION ORGANISM TITLE JOURNAL RESULT 1 BB323771 ACCESSION KEYWORDS SOURCE REFERENCE AUTHORS VERSION COMMENT

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DEFINITION
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                                                                                                                                                                                                                                                                                 "Integrated sequence analysis (RISA) system--384-format RIKEN integrated sequence analysis (RISA) system--384-format sequencing pipeline with 384 multicapillary sequencer. Genome Res. 10 (11), 1757-171 (200)

10 (11), 1757-171 (200)

10 (11), 1757-171 (200)

10 (11), 1757-171 (200)

10 (11), 1757-171 (200)

10 Call, 17 Evaluated (200)

11 (2), 281-289 (200)

12 Camputer-based methods for the mouse full-length cDNA encyclopedia: real-time sequence clustering for construction of a norredundant cDNA library. Genome Res. 11 (2), 281-289 (200)

12 Yamanaka, I., Kiyosawa, H., Kondo, S., Saito, T., Shinagawa, A., Aizawa, K., Fukuda, S., Hara, A., Itoh, M., Kawai, J., Shinata, R., Arakawa, T., Ishi, Y. and Haysahizaki, Y.

18 Hil, Y. and Haysahizaki, Y.

19 Hagae and Call (200)

10 Func. Genomics 2 pre. L72-L86 (2001)

10 Func. Genomics 2 pre. L72-L86 (2001)

10 Func. Genomics 2 pre. L72-L86 (2001)
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Email: genome-resegsc.riken.go.jp,
URL:http://genome-sgsc.riken.go.jp/
Carnincl.P., Shibata,Y., Hayatsu,N., Sugahara,Y., Shibata,K., Itoh
A., Konno,H., Okazaki,Y., Muramatsu,M. and Hayashizaki,Y.
Normalization and subtraction of cap-trapper-selected cDNAs to
Prepare full-length cDNA libraries for rapid discovery of new
genes. Genome Res. 10 (10), 1617-1630 (2000)
wagi,K., Fujiwake,S., Inoue,K., Togawa,M., Ohara,E.,
Watahiki,M., Yoneda,Y., Ishikawa,T., Ozawa,K., Tanaka,T., Matsuura
,S., Kawal,J., Okazaki,Y., Muramatsu,M., Inoue,Y., Kira,A. and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         cDNA library was prepared and sequenced in Mouse Genome Encyclopedia Project of Genome Exploration Research Group in Riken Genomic Sciences Center and Genome Science Laboratory in RIKEN. Division of Experimental Animal Research in Riken contributed to
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /note-"Site_1: Sal1; Site_2: BamHI; cDNA library was prepared and sequenced in Mouse Genome Encyclopedia project of Genome Exploration Research Group in Riken Genomic Sciences Center and Genome Science Laboratory in RIKEN. Division of Experimental Animal Research in Riken
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /clone="B430012021"
/clone_lib="RIKEN full-length enriched, 4 days neonate
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   943 GCTGATTAGTAAGTICAGAC-AATACTTCAAG-TCCCTTACATCCTTC-AGGACATGAGC 999
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/dev_stage="4 days neonate"
/lab_host="DH108"
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /organism="Mus musculus"
/db_xref="taxon:10090"
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98.7%;
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EST 10-MAY-1999
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Marra, M., Hillier, L., Kucaba, T., Martin, J., Beck, C., Wylie, T.,
Marra, M., Hillier, L., Kucaba, T., Martin, J., Beck, C., Wylie, T.,
Underwood, K., Steptoe, M., Theising, B., Allen, M., Bowers, Y., Person
, B., Swaller, T., Gibbons, M., Pape, D., Harvey, N., Schurk, R., Ritter
, E., Kohn, S., Shin, T., Jackson, Y., Cardenas, M., McCann, R.,
Materston, R. and Wilson, R.
The WashU-NCI Mouse EST Project 1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  uk27c10.yl Sugano mouse kidney mkia Mus musculus cDNA clone
IMAGE:1970226 5' similar to SW:PZYR_RAT P49651 P2Y PURINOCEPTOR 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Musinae; Mus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        This clone is available royalty-free through LLNL; contact the IMAGE Consortium (info@image.llnl.gov) for further information.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1419
                                                                                                                                                                                                                                1180 TAGGITATACCCAGAGTATGGAAAAAATAAGGCATGAGAAAGCATTGACATCTTCACTTA 1239
                                                                                                                                                                                                                                                                                                                          1240 AGAACTGAACAAAAGAGAACAAATATTGTCAATGTTTGGACACTTAGGATCTGAAATCTT 1299
                                                                                                                                                                                                                                                                                                                                                                                                               1300 GGAAATTTFAAGACCTCTTTTTCTATCAGTGTAAAAGGAATACAAGATAGCTAGTTGCAA 1359
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1420 TITATICITGTAATATITAAAATITATGTGAAAAATGAAATATAATTCAATGTACAACAITA 1479
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       306 TAGGTTATACCCAGAGTATGGAAAAATAAGGCATGAGAAAGCATTGACATCTTCACTTA 365
                                                                                                                                                                                                                                                                                                                                                                                                                                       126 IGCIGGAIGCAGCITITCACTCAGCCAAAATGAGACACTTGATAAACAGTGCTGTGCAGT 185
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4444 Forest Park Parkway, Box 8501, St. Louis, MO 63108, USA
Tel: 314 286 1800
Fax: 314 286 1810
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1360 ATGCTGAATGCATTTCATCATTGGTCAGGTCGATAAGCGTGTTTCTGAAATAGTCTTATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    linear
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Contact: Marra M/WashU-NCI Mouse EST Project 1999
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Email: mouseest@watson.wustl.edu
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Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         520 bp
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Unpublished (1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     i, mRNA sequence.
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                                       ORGANISM
                                                                                    REFERENCE
                                                                                                  AUTHORS
                                                                                                                                                                                                                                                          JOURNAL
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                                                                                                                                                                 was primed with an oligo(dT) primer [ATGTGGCCTTTTTTTTTTTTT]; double-stranded cDNA was ligated to a Draili adaptor [TGTTGGCCTACTGG], digested and cloned into distinct braili sites of the pWB18S-FL3 vector (5' site CACTGTGG, 3' site CACCATGTG). XhoI should be used to isolate the cDNA insert. Size selection was performed to exclude fragments <1.5\text{ib. Library}
                                                                                                                                                                                                                                                                                                                                                                                                                                  ÷
                                                                                                                                                                                                                                                                                constructed by Dr. Sumio Sugano (University of Tokyo Institute of Medical Science). Custom primers for sequencing: 5' end primer CTTCTGCTCTAAAAGCTGCG and 3' end primer CGACCTGCAGCTCGAGCAA."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      BB744515 RIKEN full-length enriched, adult male kidney Mus musculus CDNA clone F530003124 3', mRNA sequence.
                                                                                                                                       /note="Organ: kidney; Vector: pME18S-FL3; Site_1: DraIII (CACTGTGTG); 1st strand cDNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   61 TTGTGAGAATTGGTTGGCAACAGAGGCTATCTTGAATAAGTACTACCTCTCTGCATTTTA 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                121 TGCAATCGAGTTCATTTTGGACTGCTTGGGAATGTCACTGTGGTGTTCGGCTACCTCTT 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TCCTTTCCTGTGCACCCTTCCCATCCTGATAAAGAGTTATGCCAATGATAAGGGGACCTA 300
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      361 CCTCTTCCTCACTTTCATTAGCATGGACCGATATCTGCTCATGAAGTACCCTTTCCGAGA 420
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                                                                                                                                                                                                                                                                                                                                                                                                                                 0;
                                                                                                                                                                                                                                                                                                                                                                                         Score 495.8; DB 9; Length 520;
Pred. No. 2.7e-109;
0; Mismatches 7; Indels 0.
                                                           /clone="IMAGE:1970226"
/clone_lib="Sugano mouse kidney mkia"
/sex="female"
              /organism="Mus musculus"
                                              /db_xref="taxon:10090"
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                                                                                                                                                                                                                                                                                                                                             107 g
                                                                                                         /dev_stage="adult"
                                                                                                                        /lab_host="DH10B"
                               /strain="C57BL"
                                                                                                                                                                                                                                                                                                                                                                                           32.1%;
98.6%;
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source
                                                                                                                                                                                                                                                                                                                                           BASE COUNT
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sequencing pipeline with 384 multicapillary sequencer. Genome Res. 10 (11), 1751-1771 (2000)

10 (11), 1757-1771 (2000)

Konno, H., Fukunishi, Y., Shibata, K., Itoh, M., Carninci, P., Sugahara, Y. and Hayashizaki, Y.
Computer-based methods for the mouse full-length cDNA encyclopedia: real-time sequence clustering for construction of a nonredundant cDNA library. Genome Res. 11 (2), 281-289 (2001) please visit our web site (http://genome.gsc.riken.go.jp) for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Email: genome.resigsc.riken.go.jp,
URL:http://genome.gsc.riken.go.jp,
Carninci.p., Shibata.Y., Hayatsu,N., Sugahara,Y., Shibata,K., Itoh
'M., Konno,H., Okazaki,Y., Muramatsu,M., and Hayashizaki,Y.
Normalization and subtraction of cap-trapper-selected cDNas to
Prepare full-length cDNa libraries for rapid discovery of new
genes. Genome Res. 10 (10), 1617-1630 (2000)
wagi,K., Fujiwake,S., Inoue,K., Togawa,Y., Izawa,M., Ohara,E.,
watahiki,M., Yoneda,Y., Ishikawa,T., Ozawa,K., Tanaka,T., Matsuura
i.S., Kawai,J., Okazaki,Y., Muramatsu,M., Inoue,Y., Kira,A. and
                                                                                                                                                                                                                                                                                                                                                                                                                                                            Contact: Yoshihide Hayashizaki
Laboratory for Genome Exploration Research Group, RIKEN Genomic
Schences Center(GSC), Yokohama Institute
The Institute of Physical and Chemical Research (RIKEN)
1-7-22 Suehiro-cho, Tsurumi-ku, Yokohama, Kanagawa 230-0045, Japan
Tel: 81-45-503-9222
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /clone_lib="RIKEN full-length enriched, adult male kidney"
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transcriptase and subsequently enriched for full-length by
cap-trapper. Second strand cDNA was prepared with the
primer adapter of sequence (5'
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Genomic Sciences Center and Genome Science Laboratory in RIKEN. Division of Experimental Animal Research in Riken contributed to prepare mouse tissues. 1st strand cDNA was
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /note="Site_1: XhoI; Site_2: SstI; cDNA library was prepared and sequenced in Mouse Genome Encyclopedia Project of Genome Exploration Research Group in Riken
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RIKEN integrated sequence analysis (RISA) system--384-format
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/clone="F530003124"
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/dev_stage="adult"
/lab_host="SOLR"
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Fax: 81-45-503-9216
                                                                                                                                                                                                                                                                                                                                                                                                                                   Unpublished (2001)
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house mouse.
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Akimura, T., Arakawa, T., Carninci, P., Furuno, M., Hanagaki, T., Hayatsu, N., Hiranoto, K., Hiraoka, T., Hirozane, T., Imotani, K., Ishiii, Hayatsu, N., Hiranoto, K., Hiraoka, T., Hirozane, T., Imotani, K., Ito, M., Kawai, J., Kojima, Y., Konno, H., Kouda, M., Matsuyama, T., Y., Ito, M., Kawai, J., Kojima, Y., Konno, H., Kodazaki, Y., Okido, T., Satto, R., Sakai, C., Sakai, K., Sakazume, N., Saski, D., Sato, K., Shibata, K., Shinawa, A., Shiraki, T., Soqabe, Y., Suzuki, H., Tagawa, A., Takahashi, F., Takaku-Akahira, S., Tanaka, T., Tomaru, A., Toyay, T., Watahiki, A., Yasunishi, A., Muramatsu, M. and Hayashizaki, Y.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               BB746222 RIKEN full-length enriched, adult male kidney Mus musculus cDNA clone F530013P03 3', mRNA sequence.
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URL:http://genome.gsc.riken.go.jp/
Carninci,P., Shibata,Y., Hayatsu,N., Sugahara,Y., Shibata,K., Itoh
,M., Konno,H., Okazaki,Y., Muramatsu,M. and Hayashizaki,Y.
Normalization and subtraction of cap-trapper-selected cDNAs to
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Tel: 81-45-503-9222
Fax: 81-45-503-9216
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
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The Institute of Physical and Chemical Research (RIKEN)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1389 TCGATAAGCGTGTTTCTGAAATAGTCTTATTTTTATTCTTGTAATATTAAAATTTATGTG 1448
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                                                                                                                                      1 TAGGCTTTAGCTTTCCACCATCCTCCAACCCCCAGGGCTGAAGTACAAGCTGGGTCCACA 60
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Contact: Yoshihide Hayashizaki
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                                                             Matches 455; Conservative
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Best Local Similarity
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sequencing pipeline with 384 multicapillary sequencer. Genome Res. . 10 (11), 1757-1771 (2000) Konno, H., Fukunishi, Y., Shibata, K., Itoh, M., Carninci, P., Sugahara
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         prepare full-length cDNA libraries for rapid discovery of new genes. Genome Res. 10 (10), 1617-1630 (2000)
wagi,K., Fujiwake,S., Inoue,K., Togawa,Y., Izawa,M., Ohara,E., Matahiki,M., Yoneda,Y., Ishikawa,T., Ozawa,K., Tanaka,T., Matsuura ,S., Kawai,J., Okazaki,Y., Muramatsu,M., Inoue,Y., Kira,A. and Hayashizaki,Y.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  contributed to prepare mouse tissues. 1st strand cDNA was
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /note="Site_1: XhoI; Site_2: SstI; cDNA library was prepared and sequenced in Mouse Genome Encyclopedia Project of Genome Exploration Research Group in Riken Genomic Sciences Center and Genome Science Laboratory in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RIKEN. Division of Experimental Animal Research in Riken
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                                                                                                                                                                                                                                                                 encyclopedia: real-time sequence clustering for construction of nonredundant cDNA library. Genome Res. . 11 (2), 281-289 (2001) Please visit our web site (http://genome.gsc.riken.go.jp) for further details.
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28.4%; Score 438; DB 10;
Best Local Similarity 99.8%; Pred. No. 2.6e-95;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                EST 15-0CT-2001
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Y. and Hayashizaki, Y. Shibata, K., Itoh, M., Carninci, P., Sugahara Computer based methods for the mouse full-length cDNA encyclopedia: real-time sequence clustering for construction of a nonredundant cDNA library. Genome Res. 11 (2), 281-289 (2001) Please visit our web site (http://genome.gsc.riken.go.jp) for
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URL:http://genome.gsc.riken.go.jp/
Carninci.p., Shibata,Y., Hayatsu,N., Sugahara,Y., Shibata,K., Itoh
M., Konno,H., Okazaki,Y., Hayatsu,M. and Hayashizaki,Y.
Normalization and subtraction of cap-trapper.selected cDNs to
prepare full-length cDNa libraries for rapid discovery of new
wagi.K., Fujiwake.S., 10 (10), 1617-1630 (2000)
wagi.K., Fujiwake.S., Inoue,K., Togawa,Y., Izawa,M., Ohara,E.,
Hatahiki,M., Yoneda,Y., Ishikawa,T., Ozawa,K., Tanaka,T., Matsuura
Hayashizaki,Y.
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Laboratory for Genome Exploration Research Group, RIKEN Genomic
Sciences Center (GSC), Yokohama Institute
The Institute of Physical and Chemical Research (RIKEN)
1-7-22 Suebliro-cho, Tsurumi-ku, Yokohama, Kanagawa 230-0045, Japan
Tel: 81-45-503-922
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi,
Mammalia, Eutheria, Rodentia, Sciurognathi, Muridae, Murinae, Mus.
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/dev_stage="6 days neonate"
/note="Vector: pSPORT1; Site_1: Sal1; Site_2: Not1; This clone is among a rearrayed set of 15,247 clones from 11
BB738743 RIKEN full-length enriched, 6 days neonate spleen Mus
musculus cDNA clone F430109C18 3', mRNA sequence.
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                                                                                                                                                                                                         429 TAGATTTTCTATTTGAAAATTATATTTCTT 458
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                                                                                                                                                                              Location/Qualifiers
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BB738743
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SOURCE
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COMMENT

FEATURES

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embryo cDNA libraries (including preimplantation stage embryos from unfertilized egg to blastocyst, embryonic part of E7.5 embryos, extraembryonic part of E7.5 embryos , extraembryonic part of E7.5 embryos ovary cDNA library. Average insert size 1.5 kb. All source libraries are cloned unidirectionally with Oligo(dT
                                                                                                                                                                  )-Not primers. References include: (1) Genome-wide expression profiling of mid-gestation placenta and embryo using a mid-gestation placenta and embryo using a mid-gestation placenta, 2000, Proc. Natl. Acad. Sci. U S A, 97: 9127-9132; (2) Large-scale cDNA analysis reveals phased gene expression patterns during preimplantation mouse development, 2000, Development, 127: 1737-1749; (3) Genome-wide mapping of unselected transcripts from extraembryonic tissue of
                                                                                                                                                                                                                                                                                                                                                                                            7.5-day mouse embryos reveals enrichment in the t-complex and under-representation on the X chromosome, 1998, Hum Mol Genet 7: 1967-1978."
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Pred. No. 1.7e-89;
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/clone_lib="RIKEN full-length enriched, adult male kidney"
/sex="male"
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Konno, H., Fukunishi, Y., Shibata, K., Itoh, M., Carninci, P., Sugahara
                                                                                                                                                                                                                                                                     Email: genome-res@gsc.riken.go.jp,
URL:http://genome.gsc.riken.go.jp,
Carnindi.P., Shibata,Y., Hayatsu,N., Sugahara,Y., Shibata,K., Itoh
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Normalization and subtraction of cap-trapper-selected CDNAs to
prepare full-length CDNA libraries for rapid discovery of new
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agi,K., Fujiwake,S., Inoue,K., Togawa,Y., Izawa,M., Ohara,E.,
Wattahiki,M., Yoneda,Y., Ishikawa,T., Ozawa,K., Tanaka,T., Matsuura
AS., Rawai,J., Okazaki,Y., Muramatsu,M., Inoue,Y., KIra,A. and
                                                                                                                       Laboratory for Genome Exploration Research Group, RIKEN Genomic Sciences Center(GSC), Yokohama Institute
The Institute of Physical and Chemical Research (RIKEN)
1-7-22 Suehiro-cho, Tsurumi-ku, Yokohama, Kanagawa 230-0045, Japan
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Computer-based methods for the mouse full-length CDNA encyclopedia: real-time sequence clustering for construction of a norredundant CDNA library. Genome Res. . 11 (2), 281-289 (2001) Please visit our web site (http://genome.gsc.riken.go.jp) for further details.
, Watahiki,A., Yasunishi,A., Muramatsu,M. and Hayashizaki,Y. RIKEN Encyclopedia of Mouse Full-length cDNAs (Akimura,T., et al.
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                                                                                                       Contact: Yoshihide Hayashizaki
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/lab_host="SOLR"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    and Hayashizaki,Y.
                                                                                                                                                                                                                                  Tel: 81-45-503-9222
Fax: 81-45-503-9216
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Matches 405; Conservative
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RİKEN integrated sequence analysis (RISA) system--384-format sequencing pipeline with 384 multicapillary sequencer. Genome Res. 10 (11), 1757-1771 (2000) Konno, H., Fukunishi, Y., Shibata, K., Itoh, M., Carninci, P., Sugahara X. and Hayashizaki, Y. computer-based methods for the mouse full-length cDNA
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wagi, K., Fujiwake, S., Inoue, K., Togawa, Y., Izawa, M., Ohara, E., Watchiki, M., Yoneda, Y., Ishikawa, T., Ozawa, K., Tanaka, T., Matsuura, S., Kawai, J., Okazaki, Y., Muramatsu, M., Inoue, Y., Kira, A. and Hayashizaki, Y.
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BB864882 RIKEN full-length enriched, RCB-1283 B16 melanoma cDNA Mus
musculus cDNA clone G430047cll 5', mRNA sequence.
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Contact: Yoshihide Hayashizaki
Laboratory for Genome Exploration Research Group, RIKEN Genomic
Sciences Center(GSC), Yokohama Institute
The Institute of Physical and Chemical Research (RIKEN)
1-7-22 Suehiro-cho, Tsurumi-ku, Yokohama, Kanagawa 230-0045, Japan
Tel: 81-45-503-9222
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Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus
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URL:http://genome.gsc.riken.go.jp/
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Akimura, T., Arakawa, T., Carninci, P., Furuno, M., Hanagaki, T., Hayatsu, N., Hiramcto, K., Hiraoka, T., Hirozane, T., Imotani, K., Ishii, Y., Kouda, M., Matsuyama, T., Makamura, M., Naishi, K., Nomura, K., Numasaki, R., Okazaki, Y., Okido, T., Saito, R., Sakai, C., Sakai, K., Sakazume, N., Sasaki, D., Sato, K., Shindaqa, A., Shiraki, T., Sogabe, Y., Suzuki, H., Tagawa, A., Takaku, S., Tanaka, T., Tomaru, A., Takaku, A., Shiraki, T., Sogabe, Y., Suzuki, H., Tagawa, Watahiki, A., Takaku, Akhahira, S., Tanaka, T., Tomaru, A., Toya, T., Riken Encyclopedia of Mouse Full-length cDNAs (Akimura, T., et al.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RIKEN integrated sequence analysis (RISA) system--384-format sequencing pipeline with 384 multicapillary sequencer. Genome Res. 10 (11), 1757-1771 (2000) Konno,H., Fukunishi,Y., Shibata,K., Itoh,M., Carninci,P., Sugahara
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/note="pooled cell lines" (cell_line=CRL-1751 WEHI 164),
(cell_line=CRL-2116 JC), (cell_line=RCB-0545 OHTA),
(cell_line=RCB-0545 K-1 . F1), (cell_line=RCB-0545 OHTA),
(cell_line=RCB-0559 K-1 . F1), (cell_line=RCB-1283 B16
melanoma), (cell_type=B cells, cell_line=RCB-1283 B16
), (cell_type=Leydig cells, cell_line=RCL-106 WEHI 231
), (cell_type=Leydig cells, cell_line=CRL-2065 MLTC-1),
(cell_type=Nullipotent stem cell, cell_line=CRL-2065 MLTC-1),
(fissue_type=bladder, cell_line=RCB-0544 MBT-2),
/ tissue_type=Nullipotent cells, cell_line=RCB-0544 MBT-2),
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                                                                                                                                                                                                                                                                                                              Unpublished (2001)
Contact: Yoshinide Hayashizaki
Laboratory for Genome Exploration Research Group, RIKEN Genomic
Sciences Center(GSC), Yokohama Institute
The Institute of Physical and Chemical Research (RIKEN)
1-7-22 Suehiro-cho, Tsurumi-ku, Yokohama, Kanagawa 230-0045, Japan
Tel: 81-45-503-9226
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Email: genome-resegrsc.riken.go.jp,
URL:http://genome.gsc.riken.go.jp,
URL:http://genome.gsc.riken.go.jp,
Carninci,P., Shibata,Y., Hayatsu,N., Sugahara,Y., Shibata,K., Itoh
'M., Konno,H., Okazaki,Y., Muramatsu,M. and Hayashizaki,Y.
Normalization and subtraction of cap-trapper-selected cDNAs to
prepare [III]-enquth cDNA libraries for rapid discovery of new
genes. Genome Res. . 10 (10), 1617-1630 (2000)
wagi,K., Fujiwake,S., Inoue,K., Togawa,Y., Izawa,M., Ohara,E.,
watahiki,M., Yoneda,Y., Ishikawa,T., Ozawa,K., Tanaka,T., Matsuufa
'S., Kawai,J., Okazaki,Y., Muramatsu,M., Inoue,Y., Kira,A. and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          encyclopedda: real-time sequence clustering for construction of a nonredundant cDNA library. Genome Res. . il (2), 281-289 (2001) Please visit our web site (http://genome.gsc.riken.go.jp) for further details.
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/clone="G430047c11"
/clone_lib="RIKEN full-length enriched, RCB-1283 B16
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Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
1 (bases 1 to 426)
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Akimura,T., Arakawa,T., Carninci,P., Furuno,M., Hanagaki,T., Akimura,T., Arakawa,T., Hiraoka,T., Hirozane,T., Imotani,K., Ishli Hayatau,N., Hiramoto,K., Hiraoka,T., Hirozane,T., Imotani,K., Ishli,Y., Youno,H., Matayama,T., Y., Ito,M., Rawai,J., Kolia,Y., Konda,M., Matsayama,T., Nakamura,M., Nishi,K., Nomura,K., Numasaki,R., Osazaki,T., Okido,T., Salto,R., Sakai,C., Sakai,K., Sakai,K., Sakai,D., Sato,K., Shibata,K., Shinaya,A., Shiraki,T., Soqabe,Y., Suzuki,H., Tagawa,A., Takahashi,F., Takaku-Akahira,S., Tanaka,T., Tomaru,A., Towaru,A., Watahiki,A., Yasunishi,A., Muramatsu,M. and Hayashizaki,Y.
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URL:http://genome-ssc.riken.go.jp/
Carninci,P., Shibata,Y., Hayatsu,N., Sugahara,Y., Shibata,K., Itoh
Carninci,P., Shibata,Y., Hayatsu,N., and Hayashizaki,Y.
M., Konno,H., Okazaki,Y., Muramatau,M. and Hayashizaki,Y.
Normalization and subtraction of cap-trapper-selected cDNAs to
Prepare full:length cDNA libraries for rapid discovery of new
genes. Genome Res. 10 (10), 1617-1630 (2000)
wagi,K., Fujiwake,S., Inoue,K., Togawa,M., Ohara,E.,
Watahiki,M., Yoneda,Y., Ishikawa,T., Ozawa,K., Tanaka,T., Matsuura
,S., Kawai,J., Okazaki,Y., Muramatsu,M., Inoue,Y., Kira,A. and
Hayashizaki,Y.
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The Institute of Physical and Chemical Research (RIKEN)
T-7.22 Suchlizo-cho, Tsurumi-ku, Yokohama, Kanagawa 230-0045, Japan Tel: 81-45-503-922
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1421 TTATTCTTGTAATATTAAAATTTATGTGAAAAATGAATATAATTCAATGTACAACATTAG 1480
                                                         GCTGAATGCATTTCATCATTGGTCA-GGTCGATAAGCGTGTTTCTGAAATAGTCTTATTT 1420
                                                                                                                                                                                 1242 AACTGAACAAAAAGAGAACAAATATTGTCAATGTTTGGACACTTAGGATCTGAAATCTTGG 1301
                                                                                                                                                                                                                                                                                                   1302 AAATTTTAAGACCTCTTTTCTATCAGTGTAAAAGGAATACAAGATAGCTAGTTGCAAAT 1361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   BB739482 BIKEN full-length enriched, 6 days neonate spleen Mus musculus cDNA clone F430113M16 3', mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                              243 GCTGAATGCATTTCATCATCATGTCACGGTCGATAAGCGTGTTTCTGAAATAGTCTTATT 302
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      303 TIATICITGTAATATTAAAATTTATGTGAAAAATGAATATAATTCAATGTACAACATTAG 362
                                                                                                                                                                                                                                       123 AACTGAACAAAAAGGAACAAATATTGTCAATGTTTGGACACTTAGGATCTGAAATCTTTG 182
                                                                                                                                                                                                                                                                                                                                      3 GGGCTGGAGTACAAGCTGGGTCCACATGAATCAGAAGGCAGCTCTCTGTTCTGATTTTAG 62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Unpublished (2001)
Contact: Yoshihide Hayashizaki
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BB739482
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RIKEN integrated sequence analysis (RISA) system--384-format sequencing pipeline with 384 multicapillary sequencer. Genome Res. 10 (11), 1757-1771 (2000) Konno, H., Fukunishi, Y., Shibata, K., Itoh, M., Carninci, P., Sugahara
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1462 ATTCAAIGTACAACATTAGAITTTCTATTTGAAAATTATATTTCTTGAAAAATAACTGC 1521
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Computer-based methods for the mouse full-length cDNA encyclopedia: real-time sequence clustering for construction of nonredundant cDNA library. Genome Res. . 11 (2), 281-289 (2001) please visit our web site (http://genome.gsc.riken.go.jp) for further details.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /clone_lib="RIKEN full-length enriched, 6 days neonate
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1222 CATTGACATCTTCACTTAAGAACTGAACAAAAGAGAACAAATATTGTCAATGTTTGGACA 1281
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /organism="Mus musculus"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /db_xref="taxon:10090"
/clone="F430113M16"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /tissue_type="spleen"
                                                                                                                                                                                                                                                                                                                                                                                                                             Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /strain="C57BL/6J"
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                                                                                                                                                                , \Upsilon . and Hayashizaki, \Upsilon .
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Matches 381; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                      e mouse tissues
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EST 30-APR-1999
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                                                                                                                                                                                                                                                                                                                                                                                  1 (bases 1 to 367)
Marra,M., Hillier,L., Kucaba,T., Martin,J., Beck,C., Wylie,T.,
Underwood,K., Steptoe,M., Theising,B., Allen,M., Bowers,Y., Person,B., Swaller,T., Gibbons,M., Pape,D., Harvey,N., Schurk,R., Ritter,E., Kohn,S., Shin,T., Jackson,Y., Cardenas,M., McCann,R.,
                                                                                                                                                                                                                                                                                                                                  Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /note="Organ: kidney; Vector: pME18S-FL3; Site_1: DraIII (CACTGTGTG); Site_2: DraIII (CACCATGTG); 1st strand cDNA was primed with an oligo(dT) primer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       This clone was previously sequenced on the 5' end only, this new data is from the 3' end
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           This clone is available royalty-free through LLML; contact the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1035 CACTIGATAAACAGIGCIGIGCAGIIGAGIIITAACIAAGIAAACCACCAITICIAGGCI 1094
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Contact: Marra M/Mashu NCI Mouse EST Project 1999
Washington University School of Medicine
4444 Forest Park Parkway, Box 8501, St. Louis, MO 63108, USA
                                                                                                                                                  uk27c10.x1 Sugano mouse kidney mkia Mus musculus cDNA clone
IMAGE:1970226 3', mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           23.6%; Score 363.8; DB 9; Length 367; 99.5%; Pred. No. 2.3e-77; Live 0; Mismatches 2; Indels 0,
                                                                                                                                    linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /clone_lib="Sugano mouse kidney mkia"
                                                                                                                                       mRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     The WashU-NCI Mouse EST Project 1999
Unpublished (1999)
Other_ESTs: uk27c10.y1
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Email: mouseest@watson.wustl.edu
                                                                                                                                 367 bp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Seq primer: custom primer used
High quality sequence stop: 353.
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /db_xref="taxon:10090"
/clone="IMAGE:1970226"
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/dev_stage="adult"
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361 TGTGCCTAAATAAATCAATATA 382
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Fax: 314 286 1810
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                                                                                                                                                                                                                                                                                    house mouse.
                                                                                                                                                                                                                                                                                                               Mus musculus
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                                                                                                                                                    DEFINITION
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1 (bases 1 to 636)
Arakawa,T., Carninci,P., Fukuda,S., Furuno,M., Hanagaki,T., Hara,A.,
Hiramoto,K., Hori,F., Ishii,Y., Ito,M., Kawai,J., Konno,H., Kouda
,M., Koya,S., Matsuyama,T., Miyazaki,A., Nomura,K., Ohno,M.,
Okazaki,Y., Okidb,T., Saito,R., Sakai,C., Sakai,K., Sano,H., Sasaki
,D., Shibata,K., Shinagawa,A., Shiraki,T., Sogabe,Y., Suzuki,H.,
Muramatsu,M., and Hayashizaki,Y.
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URL:http://genome.gsc.riken.go.jp,
Carninci,P., Shibata,Y., Hayatsu,N., Sugahara,Y., Shibata,K., Itch
'M., Konno,H., Okazaki,Y., Muramatsu,M. and Hayashizaki,Y.
Normalization and subtraction of cap-trapper-selected cDNas to
prepare full-length cDNA libraries for rapid discovery of new
genes. Genome Res. 10 (10), 1617-1630 (2000)
wagi,K., Fujiwake,S., Inoue,K., Togawa,Y., Izawa,M., Ohara,E.,
Watahiki,M., Yoneda,Y., Ishikawa,T., Ozawa,K., Tanaka,T., Matsura,S., Kawai,J., Okazaki,Y., Muramatsu,M., Inoue,Y., Kira,A. and
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Konno, H., Fukunishi, Y., Shibata, K., Itoh, M., Carninci, P., Sugahara
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Laboratory for Genome Exploration Research Group, RIKEN Genomic Sciences Center(GSC), Yokohama Institute
The Institute of Physical and Chemical Research (RIKEN)
1-7-22 Suehiro-cho, Tsurumi-ku, Yokohama, Kanagawa 230-0045, Japan Tel: 81-45-503-9212
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              BB645274 RIKEN full-length enriched, 4 days neonate male adipose Mus musculus cDNA clone B430012021 5', mRNA sequence.
                                                         1155 AGAAGGCAGCTCTCTGTTCTGATTTTAGGTTATACCCAGAGTATGGAAAAAATAAGGCAT 1214
                                                                                                                                                                                                                                                                                                     1275 ITGGACACTTAGGATCTGAAATCTTGGAAATTTTAAGACCTCTTTTTCTATCAGTGTAAA 1334
                                                                                                                                                                             1215 GAGAAAGCATTGACATCTTCACTTAAGAACTGAACAAAGAGAACAAATATTGTCAATGT 1274
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307 TTAGCTTTCCACCATCCTCCAACCCCCAGGGCTGGAGTACAAGGTGGGTCCACATGAATC 248
                                                                                             187 GAGAAAGCATTGACATCTTCACTTAAGATCTGAACAAAAGAGAACAAATATTGTCAATGT 128
                                                                                                                                                                                                                                                                                                                                        Computer-based methods for the mouse full-length cDNA
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/db_xref="taxon:10090" /clone="B430012021" /clone="B430012021" /clone_lib="RIKEN full-length enriched, 4 days neonate
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ishli,Y. and Hayashizaki,Y. Mapping of 19032 mouse cDNAs on mouse chromosomes. J. Struct. Punc. Genomics 2 pre, L72-L86 (2001 Please visit our web site (http://genome.gsc.riken.go.jp) for further details.
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/dev_stage="4 days neonate"
/lab_host="DH10B"
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Contact: Icsuinture nayasuizania.
Laboratory for Genome Exploration Research Group, RIKEN Genomic Sciences Cerfer(GSO), Yokohama Institute
Sciences Cerfer(GSO), Yokohama Institute
The Institute of Physical and Chemical Research (RIKEN)
1-7-22 Suehiro-cho, Tsurumi-ku, Yokohama, Kanagawa 230-0045, Japan
1-7-22 Suehiro-cho, Tsurumi-ku, Yokohama, Kanagawa 230-0045, Japan
Tel: 81-45-503-9216
Email: genome-reseage.riken.go.jp,
URL:http://genome.gsc.riken.go.jp,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Akimura,T., Arakawa,T., Carninci,P., Furuno,M., Hanagaki,T., Akimura,T., Arakawa,T., Hiraoka,T., Hirozane,T., Imotani,K., Ishiii Hayatsu,N., Hiramoto,K., Hiraoka,T., Hirozane,T., Imotani,K., Makamura,M., Matshi,K., Nomura,K., Numasaki,R., Okazaki,Y., Okido,T., Satio,R., Sakai,C., Sakai,K., Sakai,K., Sakai,K., Sakai,K., Sakai,K., Sakai,K., Sakai,K., Sakai,K., Tagawa,A., Shinagawa,A., Shiraki,T., Sogabe,Y., Suzuki,H., Tagawa,A., Takahashi,F., Takaku-Akahira,S., Tanaka,T., Tomaru,A., Toya,T., Watahiki,A., Yasunishi,A., Muramatsu,M. and Hayashizaki,Y.
                                                                                                                  BB846608 RIXEN full-length enriched, adult male kidney Mus musculus
                                                                          EST 26-NOV-2001
                                                                                                                                                                                                                                                                                                                                                                                                                              Mus musculus
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Mus.
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/clone="F530003124"
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/dev_stage="adult"
/lab_host="SOLR"
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Contact: Yoshihide Hayashizaki
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transcriptase and subsequently enriched for full-length by
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              Mus musculus
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Laboratory for Genome Exploration Research Group, RIKEN Genomic Sciences Center(GSC), Yokohama Institute
The Institute of Physical and Chemical Research (RIKEN)
1-7-22 Suchiro-cho, Tsurumi-ku, Yokohama, Kanagawa 230-0045, Japan
                                                                                                                                                                                                                                        61 TIGIGAGAATIGGITGGCAACAGAGGCTAICTIGAATAAGTACTACCTCTGCATITIA 120
                                                                                                                                                                                                                                                                                                    121 TGCAATCGAGTTCATTTTTGGACTGCTTGGGAATGTCACTGTGGTGTTCGGCTACCTCTT 180
                                                                                                                                                                                                                                                                                                                                 136 TGCAATCGAGTTCATTTTGGACTGCTTGGGAATGTCACTGTGGTGTTTGGCTACCTCTT 195
                                                                                                                                                                                                                                                       241 TGCTTTCCTGTGCACCCTTCCCATCCTGATAAAGAGTTATGCCAATGATAAGGGGACCTA 300
                                                                                                                                                                                                                                                                                                                                                                                                                                             301 TGGAGATGTTCTCTGTATAAGCAACCGATATGTGCTTCACACCAACCTCTACACCAGCAT 360
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                                                                                                                        Score 354.2; DB 10; Length 416;
                                                                                                                                     Pred. No. 4.9e-75;
0; Mismatches 8; Indels
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                                                                                                                     Query Match 23.0%;
Best Local Similarity 97.3%;
Matches 392; Conservative 0
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                                                                                                                  Query Match
Best Local Similarity
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Email: genome-reségsc.riken.go.jp,
URL:http://genome.gsc.riken.go.jp,
Carninci.P., Nishiyama.Y., Westover,A., Itoh,M., Nagaoka,S., Sasaki
N., Okazaki,Y., Muramatsu,M. and Hayashizaki,Y.
Thermostabalization and thermoactivation of thermolabile enzymes by
trehalose and its application for the synthesis of full length
cDNA. Proc. Natl. Acad. Sci. U.S.A. 95 (2), 520-524 (1998)
Itoh,M., Kisunai,T., Akiyama,J., Shibata,K., Izawa,M., Kawai,J.,
Tomaru,Y., Carninci,P., Shibata,Y., Ozawa,Y., Muramatsu,M., Okazaki,Y. and Hayashizaki,Y.
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                                                                                                                                                                                                                                      Automated filtration-based high-throughput plasmid preparation System. Genome Res. 9 (5), 463-470 (1999)
Carninci,P. and Hayashizaki,Y.
High-efficiency full-length cDNA cloning. Methods Enzymol. 303, 19-44 (1999)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /note-"Site_1: SalI: Site_2: BamHI; cDNA library was prepared and sequenced in Mouse Genome Encyclopedia Project of Genome Exploration Research Group in Riken
                                                                                                                                                                                                                                                                                                                                       Please visit our web site (http://genome.rtc.riken.go.jp) for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1223 ATTGACATCTTCACTTAAGAACTGAACAAAAGAGAACAAATATTGTCAATGTTTGGACAC 1282
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1283 TTAGGATCTGAAATCTTGGAAATTTTAAGACCTCTTTTTCTATCAGTGTAAAAGGAATAC 1342
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1403 TCTGAAATAGTCTTATTTTTATTCTTGTAATATTAAAATTTATGTGAAAAATGAAAAA 1462
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1463 ITCAATGTACAACATTAGATTTTCTATTTGAAAATTATATTTCTTGAAAAATAACTGCT 1522
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /tissue_type="aorta and vein"
/dev_stage="adult"
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                                                                                                                                                                                                                                                                                                                                                                                                                      /organism="Mus musculus"
                                                                                                                                                                                                                                                                                                                                                                                                                                         /db_xref="taxon:10090"
/clone="A530062P04"
                                                                                                                                                                                                                                                                                                                                                                               Location/Qualifiers
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /lab_host="DH10B"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /sex="male"
Tel: 81-45-503-9222
                    Fax: 81-45-503-9216
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                                                                                                                                                                602466748F1 NIH_MGC_75 Homo sapiens cDNA clone IMAGE:4594810 5', MRNA sequence
                                                                                                                                                                                                                                                                                                                                                          Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo. I (Dases 1 to 877)
NIH-NGC http://mgc.ncl.nih.gov/.
National Institutes of Health, Mammalian Gene Collection (MGC)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DNA Sequencing by: Incyte Genomics, Inc. Clone distribution information can be found through the I.M.A.G.E. Consortium/LLNL at: http://image.llnl.gov
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Email: cgapbs-remail.nih.gov
Trissue Procurement: CLONTECH Laboratories, Inc.
cDN Library Preparation: CLONTECH Laboratories, Inc.
cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /db_xref="taxon:9606"
/clone="TRAGE:4594810"
/clone="TRAGE:4594810"
/lab_nost="DH10B (TI phage-resistant)"
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High quality sequence stop: 542.
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Contact: Robert Strausberg, Ph.D.
1523 GTGCCTAAATAAATCAATATA 1543
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                          301 GTGCCTAAATAAATCAATATA 321
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RS Konno, H., Aizawa, K., Akahira, S., Akiyama, J., Arakawa, T., Carninci.
P., Endo, T., Fukuda, S., Fukunishi, Y., Hara, A., Hayatsu, N.,
Endo, T., Fukuda, S., Fukunishi, Y., Hara, A., Hayatsu, N.,
Hirozane, T., Hori, F., Ishi, Y., Ishikawa, J., Ishikawa, T., Itoh, M.,
Izawa, M., Radota, K., Kagawa, I., Kai, C., Kusakabe, M.
Kiyosawa, H., Kojima, Y., Kondo, S., Koya, S., Kurihara, C., Kusakabe, M.
Kiyosawa, H., Kojima, Y., Kondo, S., Koya, S., Kurihara, C., Kusakabe, M.,
Matsuyama, T., Miki, R., Mizuno, Y., Nakamura, M., Oda, H., Okazaki, Y.,
Ono, T., Cwal, C., Saito, H., Sako, K., Shibata, K., Shibata, Y., Suzuki, H., Tagawa, A., Shiraki, T., Sogabe, Y., Sugahara, Y.,
Suzuki, H., Suzuki, H., Tagawa, A., Takahashi, F., Tominaga, N., Toya
, Tanoda, Y., Watahiki, A., Watanabe, S., Yamamura, T., Yamanaka, I.
Yano, R., Yasunishi, A., Yokota, T., Yoshida, K., Yoshiki, A., Yoshino
, M., Muramatsu, M. and Hayashizaki, Y.
RIKEN Mouse ESTS (Konno, H., et al.)
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URL:http://genome.gsc.riken.go.jp,
URL:http://genome.gsc.riken.go.jp,
Carninci.p., Nishiyama,Y., Westover,A., Itoh,M., Nagaoka,S., Sasaki,N., Okazaki,Y., Muramatsu,M. and Hayashizaki,Y.
Thermostabilization and thermoactivation of thermolabile enzymes by trehalose and its application for the synthesis of full length cDNA. Proc. Natl. Acad. Sci. U.S.A. 95 (2), 520-524 (1998)
Itoh,M., Kitsunai,T., Akiyama,J., Shibata,K., Izawa,M., Rawai,J., Tomaru,Y., Carninci,P., Shibata,Y., Ozawa,Y., Muramatsu,M., Okazaki,Y. and Hayashizaki,Y.
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The Institute of Physical and Chemical Research (RIKEN)
1-7-22 Suehiro-cho, Tsurumi-ku, Yokohama, Kanagawa 230-0045, Japan Tel: 81-45-503-9226
Fax: 81-45-503-9216
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1 (bases 1 to 333)
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Carninci,P. and Hayashizaki,Y.
High-efficiency full-length cDNA cloning. Methods Enzymol. 303,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      459 CGCTGGCTGTCTGGGCCTTAGTGACCTTAGAAGTTCTACCATGCTCACTTTCATCAATT 518
                                                                                                                                                                                                                                                                                                                                                                                                                                                519 CTGTCCCAAAAGAAGAGGGCAGTAACTGCATCGACTATGCAAGTTCTGGAAACCCTGAAC 578
279 ATGCCAATGATAAGGGGACCTATGGAGATGTTCTCTGTATAAGCAACCGATATGTGCTTC 338
                                                                                                                                                                         339 ACACCAACCTCTACACCAGCATCCTCTTCCTTTCATTAGCATGGACCGATATCTGC
                                       399 TCATGAAGTACCCTTTCCGAGAACACTTTCTACAAAAGAAGGAATTTGCCATTTTAATCT
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Please visit our web site (http://genome.rtc.riken.go.jp) for further details.
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                                                                                                                                                                                                                                                                                                                                                                                             19.1%; Score 294.6; DB 10; Length 333; 95.6%; Pred. No. 1.3e-60; tive 0; Mismatches 14; Indels 0; Gaps
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                                                                                                                                                                                                                                                                                                                                                                                                                                                         /organism="Mus musculus"
/db_xref="taxon:10090"
/clone="A730064B21"
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Matches 303; Conservative
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Copyright (c) 1993 - 2003 Compugen Ltd.
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1 MAQNLSCENWLATEAILNKY.....REMLISKFRQYFKSLTSFRT 317 US-09-891-138A-2 Title: Perfect score: Sequence:

BLOSUM62 Gapop 10.0 , Gapext 0.5 Scoring table:

Searched:

908470 Total number of hits satisfying chosen parameters: 908470 seqs, 133250620 residues

Minimum DB seq length: 0 Maximum DB seq length: 2000000000

Post-processing: Minimum Match 08
Maximum Match 1008
Listing first 45 summaries

/SIDS2/gcgdata/geneseg/genesegp-embl/AA1990.DAT:\*/SIDS2/gcgdata/geneseg/genesegp-embl/AA1991.DAT:\*/SIDS2/gcgdata/geneseg/genesegp-embl/AA1992.DAT:\*/SIDS2/gcgdata/geneseg/genesegp-embl/AA1993.DAT:\*/SIDS2/gcgdata/geneseg/genesegp-embl/AA1993.DAT:\* /SIDS2/gcgdata/geneseg/genesegp-embl/AA1994.DAT:\*/SIDS2/gcgdata/geneseg/genesegp-embl/AA1995.DAT:\*/SIDS2/gcgdata/geneseg/genesegp-embl/AA1996.DAT:\* /SIDS2/gcddata/geneseq/geneseqp-embl/AA1997.DAT:\*/SIDS2/gcgdata/geneseq/geneseqp-embl/AA1998.DAT:\*/SIDS2/gcgdata/geneseq/geneseqp-embl/AA1999.DAT:\* /SIDSZ/gcgdata/geneseg/genesegp-embl/AA1982\_DAT:\*
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SITMMARTES

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## ALIGNMENTS

AAU74904

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Amino acid sequence of mouse G-protein coupled receptor TGR18 protein.
                                                                                    Mouse; G-protein coupled; receptor; GPCR; TGR18; kidney disease; signal transduction modulator; cerebral cavernous malformation; hyperlipidemia; obesity; dyslexia; cardiac myxoma; renal failure; nephritis; hypertension; liver disease; cirrhosis; blood disorder; spleen-associated disorder; immune disorder.
AAU74904 standard; Protein; 317 AA.
                                           09-APR-2002 (first entry)
                      AAU74904;
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WO200200719-A2. Mus sp

03-JAN-2002.

25-JUN-2001; 2001WO-US20363.

23-JUN-2000; 2000US-213461P.

(TULA-) TULARIK INC.

Cutler G; Lin DC, Zhao J, Chen J,

WPI; 2002-147880/19. N-PSDB; ABK12957.

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The present invention relates to a new G-protein coupled receptor (GPCR) comprising greater than 70% amino acid sequence identity to polypeptide comprising greater than 70% amino acid sequence of human GPCRs 7GR21, 7GR130.2, Che amino acid sequence identity to mouse TGR10 cor 90% amino acid sequence identity to mouse TGR10 cor 90% amino acid sequence identity to human novel edg receptor protein, as defined in the specification. The GPCR covalently linked to a solid plase is useful for identified compound that modulates signal cransduction. The identified compound that modulates signal cor signal sease, cerebral cavernous malformations, hyperlipidemia, obesity, dyslexia and cardiac myxoma. The molecules of the invention are useful for diseases such as renal failure, nephritis, nephrotic. Syndrome, asymptomatic urinary abnormalities, rephritis, nephrotic. Or hypertension and nephrolithasis, liver-related disease or condition of hypertension and nephrolithasis, liver-related disease or condition and spleen-associated disorders and others. Modulation of the invention is useful to tread or prevent any of the inventions or diseases. The present amino acid sequence represents the mouse GPCR TGR18 protein of the invention. This sequence is one of the annowed protein coupled receptors of the invention (AAU74904-
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Human; orphan G protein-coupled receptor; GPCR; hCHN10; drug screening; transmembrane receptor; expressed sequence tag; EST; signal cascade.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FTPYHIMRNLRIASRLDSWPQGCTQKAIKSIYTLTRPLAFLNSAINPIFYFLMGDHYREM 300
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   New G-protein coupled receptor polypeptides, useful for identifying modulators of signal transduction for treating kidney disease, hyperlipidemia, obesity, dyslexia and cardiac myxoma
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        100.0%; score 1650; DB 23; Length 317; 100.0%; Pred. No. 1.3e-157; Live 0; Mismatches 0; Indels 0;
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                                                                                   Claim 33; Page 59; 78pp; English.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      61 LSISDFAFLCTLPILIKSYANDKGTYGDVLCISNRYVLHTNLYTSILFLTFISMDRYLLM 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          65 LSVSDLAFLCTLPMLIRSYANGNWIYGDVLCISNRYVLHANLYTSILFLFFFISIDRYLII 124
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Novel human orphan G protein-coupled receptors and the encoding cDNAs for use in the identification of G protein-coupled receptor agonists .
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1; Gaps
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               The present amino acid sequence is the hCHN10, an endogenous human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               75.1%; Score 1238.5; DB 21; Length 334; 72.2%; Pred. No. 3.6e-116; Live 42; Mismatches 45; Indels 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Claim 70; Page 87-88; 102pp; English.
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Best Local Similarity
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                            WO200031258-A2.
Homo sapiens.
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                                                                                         13-OCT-1999;
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28-MAY-1999;
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121 KYPFREHFLQKKEFAILISLAVWALVTLEVLPMLTFINSVPKEEGSNCIDYASSGNPEHN 180
                                    LIYSLCLTLLGFLIPLSVMCFFYYKMVVFLKRRSQQQATALPLDKPQRLVVLAVVIFSIL 240
           FTPYHIMRNLRIASRLDSWPQ-GCTQKAIKSIYTLTRPLAFLNSAINPIFYFLMGDHYRE 299
                                                                                   Human; G protein coupled receptor; GPCR; transmembrane receptor;
identification; agonist; screening; therapeutic; pharmaceutical;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Non-endogenous, human G protein-coupled receptors for screening
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                                                                                                                                                                                                                                Human G protein coupled receptor hCHN10 protein SEQ ID NO:38.
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aw CW, Lin I, Lowitz K,
                                                                                                                                                                          AAB02842 standard; Protein; 334 AA.
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99US-0123946.
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                                                                                                                                                                                                             22-AUG-2000 (first entry)
                                                                                                           300 MLISKFRQYFKSLTSF 315
                                                                                                                        305 MLMNQLRHNFKSLTSF 320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Liaw CW, Lin I,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (AREN-) ARENA PHARM INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WPI; 2000-317986/27.
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                                                                                                                                                                                                                                                                                                        WO200022131-A2.
                                                                                                                                                                                                                                                                                        Homo sapiens
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27-AUG-1
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                                                                                                                                of a human GPCR. These non-endogenous human GPCRs can be useful for the direct identification of candidate compounds as receptors agonists, inverse agonists or partial agonists for use as pharmaceutical agents. AAA46017 to AAA46126 and AAB02825 to AAB02859 represent sequences used in
                                                               The present invention describes transmembrane receptors, preferably human G protein coupled receptors (GPCR), for which the endogenous ligand is unknown (orphan GPCR receptors). More specifically the present invention relates to non-endogenous, constitutively activated versions
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Cytostatic; immunosuppressive; nootropic; neuroprotective; antiviral; antiallergic; hepatotropic; antidiabetic; antiinflammatory; antiulcer; vulnerary; anticonvulsant; antibacterial; antihugal; antiparastic; cardiant; gene therapy; cancer; immune disorder; cardiovascular disorder; neurological disease; infection; human; secreted protein.
                                                                                                                                                                                                                                                                                                                                                                                                                               LSISDFAFLCTLPILIKSYANDKG†YGDVLCISNRYVLHTNLYTSILFLTFISMDRYLLM 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              KYPFREHFLOKKEFAILISLAVWALVTLEVLPMLTFINSVPKEEGSNCIDYASSGNPEHN 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               181 LIYSLCLTLIGFLIPLSVMCFFYYKMVVFLKRRSQQQATALPLDKPQRLVVLAVVIFSIL 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   125 KYPFREHLLQKKEFAILISLAIWVLVTLELLPILDPLINPVITDNGTTCNDFASSGDPNYN 184
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   241 FTPYHIMRNLRIASRLDSWPQ-GCTQKAIKSIYTLTRPLAFLNSAINPIFYFLMGDHYRE 299
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1; Gaps
                                                                                                                                                                                                                                                                                                                                          1 MAQNLSCENWLATEAILNKYYLSAFYAIEFIFGLLGNVTVVFGYLFCMKNWNSSNVYLFN 60
                                                                                                                                                                                                                                                                                                                                                            receptor, inverse or partial agonists useful as therapeutic agents
                                                                                                                                                                                                                                                                           DB 21; Length 334;
                                                                                                                                                                                                                                                                                                             45; Indels
                                                                                                                                                                                                                                                                     75.1%; Score 1238.5; DB 2.72.2%; Pred. No. 3.6e-116; tive 42; Mismatches 45;
                                                                                                                                                                                                  the exemplification of the present invention.
                                Example 1; Page 117-118; 187pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ABB90381 standard; Protein; 334 AA.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (HUMA-) HUMAN GENOME SCI INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         18-MAY-2001; 2001WO-US16450.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (first entry)
                                                                                                                                                                                                                                                                                                        228; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    300 MLISKFRQYFKSLTSF 315
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          305 MLMNQLRHNFKSLTSF 320
                                                                                                                                                                                                                                       334 AA;
                                                                                                                                                                                                                                                                                       Similarity
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                                                                                                                                                                                                                                        Seguence
                                                                                                                                                                                                                                                                       Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ABB90381;
                                                                                                                                                                                                                                                                                         Local
                                                                                                                                                                                                                                                                                                        Matches
                                                                                                                                                                                                                                                                                                                                                                                                             61
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The invention relates to novel genes (ABL89449-ABL90853) and proteins (ABB89040-ABB90444) useful for preventing, treating or ameliorating medical conditions e.g. by protein or gene therapy. The genes are isolated from a range of human tissues disclosed in the specification. The nucleic acids, proteins, antibodies and (ant)agonists are useful. In the diagnosis, treatment and prevention of: (a) cancer, e.g. breast and ovarian cancer and other cancers of the adrenal gland, bone, bone marrow, breast, gastrointestinal tract, liver, lung, or urogenital; (b) immune disorders e.g. Addison's disease, allergies, autoimmune (by immune thyroiditis, diabetes mellitus, Crohn's disease, multiple sclerosis, rheumatoid arthritis and ulcerative collisis, (c) cardiovascular disorders such as myocardial ischaemias; (d) wound healing; (e) neurological diseases e.g. cerebral anoxia and contingent and (i) infectious diseases such as viral, bacterial, fungal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Human; G-protein coupled receptor-3; GCREC-3; therapy; cancer; stroke;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    241 FTPYHIMRNLRIASRLDSWPQ-GCTQKAIKSIYTLTRPLAFLNSAINPIFYFLMGDHYRE 299
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LSISDFAFLCTLPILIKSYANDKGTYGDVLCISNRYVLHTNLYTSILFLTFISMDRYLLM 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             65 LSVSDLAFLCTLPMLIRSYANGNWIYGDVLCISNRYVLHANLYTSILFLTFISIDRYLII 124
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               121 KYPEREHFLOKKEFAILISLAVWALVTLEVLPMLTFINSVPKEEGSNCIDYASSGNPEHN 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              181 LIYSLCLTLLGFLIPLSVMCFFYYKMVVFLKRRSQQQATALPLDKPQRLVVLAVVIFSIL 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Note: The sequence data for this patent did not form part of the printed specification, but was obtained in electronic format directly from WIPO at ftp.wipo.int/pub/published_pct_sequences.
                                                              Novel 1405 isolated polypeptides, useful for diagnosis, treatment and
                                                                                                                                                                                                                                                                                                                                                                                                                                                     1; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 MAQNLSCENWLATEAILNKYYLSAFYAIEFIFGLLGNVTVVFGYLFCMKNWNSSNVYLFN 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          prevention of neural, immune system, muscular, reproductive, gastrointestinal, pulmonary, cardiovascular, renal and proliferative
                                                                                                                                                                                                                                                                                                                                                                                                                          75.1%; Score 1238.5; DB 23; Length 334; 72.2%; Pred. No. 3.6e-116; tive 42; Mismatches 45; Indels 1;
                                                                                                                              Claim 11; SEQ ID NO 2757; 2081pp + Sequence Listing; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Human G-protein coupled receptor-3 (GCREC-3) protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAE15633 standard; Protein; 379 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (first entry)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                        Matches 228; Conservative
                                                                                                                                                                                                                                                                                                                                       and parasitic infections.
                                                                                                                                                                                                                                                                                                                                                                                                                                             Best Local Similarity
     Birse CE, Rosen CA;
                            WPI: 2002-122018/16.
                                                                                                                                                                                                                                                                                                                                                                                                        334 AA;
                                           N-PSDB; ABL90790
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                                                                                                                                                                                                                                                                                                                                                                                                        Sequence
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                                                                                                           disorders
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The invention relates to isolated human G-protein coupled receptor (CCREC) polypeptides and their biologically active fragments. GCREC and protein is useful in treating a disease or condition associated with an increase or decrease in expression of functional GCREC. The GCREC's are useful in the diagnosis, treatment and prevention of cell proliferative disorders (cancer, leuksemia, melanoma); neurological disorders (stroke, epilepsy, Parkinson's disease, dementia, Alzheimer's disease); autoimmune inflammatory disorder (thyroiditis, haemolytic anaemia, AIDS, multiple sclerosis); cardiovascular disorder (atherosclerosis, and pectoris),
                      Alzheimer's disease, inflammation; thyroiditis; haemolytic anaemia; AIDS; Acquired Immune Deficiency Syndrome; dementia; nootropic; cholelithiasis; multiple sclerosis; atherosclerosis; angina pectoris; gastroenteritis; diabetes; ulcer; viral infection; immunosuppressive.
cell proliferative disorder; neurological; epilepsy; Parkinson's disease;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           gastrointestinal disorder (ulcer, cholelithiasis, gastroenteritis), metabolic disorders (diabetes); viral infections (herpes virus) and in the assessment of the effects of exogenous compounds on the expression of the nucleic acid and amino acid sequences. The present sequence is
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Isolated human G-protein coupled receptor polypeptides and the use of these sequences in the diagnosis, treatment and prevention of diseases and in the assessment of exogenous compounds on the expression of the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ramkumar J, Au-Young J; ML, Thornton M, He A;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gandhi AR, Kallick DA;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Hafalia AJA, Nguyen DB, Gandhi AR, Kallick Di
Khan FA, Patterson C, Lu DAM, Tribouley CM;
Jraul R, Yao MG, Yang J, Ramkumar J, Au Young
olez R, Walsh RT, Borowsky ML, Thornton M, He
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          45; Indels
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/label= Transmembrane_domain
                                                                                                                                                                                                                                                              187..206
/label= Transmembrane_domain
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Claim 1; Page 115-116; 143pp; English.
                                                                                                                                                                                                                               Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2000US-213954P.
2000US-215209P.
2000US-216595P.
2000US-218936P.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            15-JUN-2001; 2001WO-US19275
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Hernandez R,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Conservative
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Lu Y, Walia NK, Gr
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            379 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    N-PSDB; AAD24958
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14-JUL-2000;
19-JUL-2000;
                                                                                                                                                                                 Homo sapiens.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            27-DEC-2001
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61 LSISDFAFLCTLPILIKSYANDKGTYGDVLCISNRYVLHTNLYTSILFLTFISMDRYLLM 120
                                 KYPFREHFLQKKEFAILISLAVWALVTLEVLPMLTFINSVPKEEGSNCIDYASSGNPEHN 180
                                          241 FTPYHIMRNLRIASRLDSWPQ-GCTQKAIKSIYTLTRPLAFLNSAINPIFYFLMGDHYRE 299
                                                                                                              P2U2 receptor; purinergic receptor; diagnosis; therapy.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    note= "intracellular domain III"
                                                                                                                                                                                                                                                                                                                                                                                                                                                      'note= "transmembrane domain III'
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               "intracellular domain II"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /label= TMDVI
/note= "transmembrane domain VI"
257..276
                                                                                                                                                                                                                                                                                                                                                                                                    "transmembrane domain II"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /label= TMDIV
/note= "transmembrane domain IV"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   "extracellular domain II"
                                                                                                                                                                                                                                                                                                                                                 'note= "transmembrane domain I"
                                                                                                                                                                                                                                                                                                                                                                           'note= "intracellular domain I"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            'note= "transmembrane domain V"
                                                                                                                                                                                                                                                                                                                                                                                                                             'note= "extracellular domain
                                                                                                                                                                                                                                                                                                                         /label= N-terminal_domain
                                                                                                                                                                                                AAW19854 standard; Protein; 334 AA.
                                                                                                                                                                                                                                                                                                         Location/Qualifiers
                                                                                                                                                                                                                                                     Human purinergic receptor P2U2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /label= ICDIII
                                                                                                                                                                                                                                                                                                                                                                                                                                              TMIII
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        'label= ICDII
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           'label= ECDII
                                                                                                                                                                                                                                                                                                                                                                                                                    /label= ECDI
                                                                                                                                                                                                                                                                                                                                                                  'label= ICDI
                                                                                                                                                                                                                                                                                                                                                                                           'label= TMII
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     'label= TMDV
                                                                                                                                                                                                                                                                                                                                         /label= TMI
                                                                                                                                                                                                                                    (first entry)
                                                                                                                                     300 MLISKFRQYFKSLTSF 315
                                                                                                                                                 350 MLMNQLRHNFKSLTSF 365
                                                                                                                                                                                                                                                                                                                                                                                                                                     100..119
/label= TI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        .161
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           207
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               256
                                                                                                                                                                                                                                                                                      Homo sapiens
                                                                                                                                                                                                                                    11-SEP-1997
                                                                                                                                                                                                                 AAW19854;
                                                                                                                                                                                                                                                                                                                Domain
                                                                                                                                                                                                                                                                                                                                Domain
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                                                                                                                                                                                RESULT 6
                                                                                                                                                                                         AAW19854
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subtype that is abundantly expressed in kidney and in many cell subtype that is abundantly expressed in kidney and in many cell lines of megakaryocytic or erythroleukaemic origin and which is activated by ATP, UDP, UTP and UDP. Its amino acid sequence was deduced from a cDNA clone derived from DAMI (ATC CRL 9792) cells. P2U2 and its polypeptides can be expressed in host cells and used to deavelop diagnostic and therapeutic agents. Antagonists and agonists based on the extracellular domains of P2U2 receptor, or which affect receptor function by binding to one of the intracellular domains, can be used to treat diseases caused by aberrant activation of this receptor or to treat diseases whose symptoms can be ameliorated by stimulating or inhibiting the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   61 LSISDFAFLCTLPILIKSYANDKGTYGDVLCISNRYVLHTNLYTSILFLTFISMDRYLLM 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     121 KYPFREHFLOKKEFAILISLAVWALVTLEVLPMLTFINSVPKEEGSNCIDYASSGNPEHN 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               181 LIYSLCLTLLGFLIPLSVMCFFYYKMVVFLKRRSQQQATALPLDKPQRLVVLAVVIFSIL 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        241 FTPYHIMRNLRIASRLDSWPQ-GCTQKAIKSIYTLTRPLAFLNSAINPIFYFLMGDHYRE 299
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         New isolated purinergic receptor sub-type - used to develop products for diagnosis and therapy, e.g. for screening for agonists and antagonists which can modulate activation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 MAQNLSCENWLATEAILNKYYLSAFYAIEFIFGLLGNVTVVFGYLFCMKNWNSSNVYLFN 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Match 74.3%; Score 1226.5; DB 18; Length 334; Local Similarity 71.5%; Pred. No. 5.8e-115; es 226; Conservative 42; Mismatches 47; Indels 1;
/label= ECDIII
/note= "extracellular domain III"
                                           /label= TMDVII
/note= "transmembrane domain VII"
                                                                                         /label= C-terminal_domain
                                                                                                                                                                                                                                                                                                                                                                                                                                 Claim 1; Fig 1A-B; 36pp; English.
                                                                                                                                                                                                                                                            (CORT-) COR THERAPEUTICS INC
                                                                                                                                                                                                                95US-0559524.
                                                                                                                                                                                                                               95US-0006782.
                                                                                                                                                                                   96WO-US18175.
                             .300
                                                                          ..334
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      300 MLISKFRQYFKSLTSF 315
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Matches 226; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         305 MLMNQLRHNFKSLTSF 320
                                                                                                                                                                                                                                                                                         Conley PB, Jantzen H;
                                                                                                                                                                                                                                                                                                                      WPI; 1997-310601/28.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 334 AA;
                                                                                                                                                                                                                                                                                                                                        N-PSDB; AAT71900
                                                                                                                      WO9720045-A2
                                                                                                                                                                                                               15-NOV-1995;
                                                                                                                                                                                                                             15-NOV-1995;
                                                                                                                                                    05-JUN-1997
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                              Domain
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65 LSVSDLAFLCTLPMLIRSYANGNWIYGDVLCISNRYVLHANLYTSILFLTFISIDRYLII 124

181

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Human ATP receptor (AAW22732) is structurally related to the G protein-coupled receptor family. It shows 29.8% identity to a murine P2u receptor. Its amino acid sequence was deduced from a human placental cDNA clone (AAP75146). Recombinant ATP receptor can be expressed in bacterial (e.g. E. coli), mammalian (e.g. COS) or insect (e.g. Sf9) host cells and used to screen for agonists and antagonists useful in the treatment of conditions related to underexpression of the receptor (e.g. asthma, Parkinson's disease, acute heart failure, hypotension, urinary retention and osteoporosis) or underexpression of the receptor (e.g. arterial
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Isolated human ATP receptor - agonists and antagonists of which are
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             thrombosis, hypertension, thrombolysis, angioplasty, cystic fibrosis, ulcers, asthma, allergy, benign prostatic hypertrophy, psychotic and neurological disorders, dyskinesias, endogenous
                                                                                                                                                ATP receptor; G-protein coupled receptor; agonist; antagonist.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         useful in treatment of, e.g. asthma, hypertension, arterial thrombosis and psychotic and neurological disorders
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          73.9%; Score 1219.5; DB 71.2%; Pred. No. 3e-114;
                                                                                                                                                                                                                                                                                                                     /note= "encoded by CYT"
                                                                                                                                                                                                                                                                         /note= "encoded by TCG"
                                                                                                                                                                                                                                           note= "encoded by TCC"
                                                                                                                                                                                                            Location/Qualifiers
                           AAW22732 standard; Protein; 334 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Claim 15; Fig 1A-C; 53pp; English.
                                                                                                                                                                                                                                                                                                        /label- Unknown
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (HUMA-) HUMAN GENOME SCI INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                             96WO-US00392.
                                                                                                                                                                                                                                                                                                                                                                                                                96WO-US00392.
                                                                                         07-OCT-1997 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 anorexia and bulimia)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WPI; 1997-372505/34.
                                                                                                                                                                                                                                                            Misc-difference 235
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 334 AA;
                                                                                                                                                                                                                                                                                           Misc-difference 244
                                                                                                                     Human ATP receptor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        N-PSDB; AAT75146.
                                                                                                                                                                                                                              Misc-difference
                                                                                                                                                                                                                                                                                                                                                       WO9724929-A1
                                                                                                                                                                                                                                                                                                                                                                                                                 11-JAN-1996;
                                                                                                                                                                                                                                                                                                                                                                                                                                               11-JAN-1996;
                                                                                                                                                                                    Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                    17-JUL-1997.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence
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                                                          AAW22732;
RESULT 7
                AAW22732
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Human, vaccination; gene therapy; nutritional supplement; stem cell proliferation; haematopoiesis; nerve tissue regeneration; immune suppression; immune stimulation; anti-inflammatory; leukaemia.

Novel human secreted protein #1520.

(first entry)

18-DEC-2001

AAU31029;

AAU31029 standard; Protein; 387 AA.

RESULT 8 AAU31029

||::: | |||||||| 305 MLMNQLRHNFKSLTSF 320 300 MLISKFRQYFKSLTSF 315

g δλ g

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polypeptides and antibodies to the polypeptides are useful for determining the presence of or predisposition to a disease associated determining the presence of or predisposition to a disease associated with altered levels of polypeptide. The polypeptides are also useful for identifying agents (agonists and antagonists) that bind to them. Cells expressing the proteins are useful for identifying a therapeutic agent for use in treatment of a pathology related to abstrant expression or physiological interactions of the polypeptide. Vectors comprising the nucleic acids encoding the polypeptides and cells genetically engineered to express them are also useful for producing the proteins. The proteins are useful in genetic vaccination, testing and therapy, and can be used as nutritional supplements. They may be used to increase stem cell proliferation; to regulate harmatopolesis; and in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Nucleic acids encoding a range of human polypeptides, useful in genetic vaccination, testing and therapy -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                bone, cartilage, tendon and/or nerve tissue growth or regeneration; immune suppression and/or stimulation; as anti-inflammatory agents; and in treatment of leukaemias. AAU29510-AAU33304 represent the amino acid sequences of novel human secreted proteins of the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      The invention relates to novel human secreted polypeptides.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Claim 20; Page 392; 765pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                            WPI; 2001-611725/70.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 MAQNLSCENWLATEAILNKYYLSAFYAIEFIFGLLGNVTVVFGYLFCMKNWNSSNVYLFN 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DB 18; Length 334;
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43; Mismatches

Conservative

Local Similarity es 225; Conserv

Best Loca Matches

61

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Drmanac RT;

Liu C,

Tang YT,

18-APR-2000; 2000US-0552929. 26-JAN-2001; 2001US-0770160. 16-APR-2001; 2001WO-US08656.

WO200179449-A2. Homo sapiens.

25-OCT-2001.

(HYSE-) HYSEQ INC.

1;

Gaps

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Human; secreted protein; diagnosis; immunosuppressive; antiarthritic; antirheumatic; antiproliferative; cytostatic; cardiant; vasotropic; cerebroprotective; notropic; neuroprotective; antibacterial; virucide; fungicide; ophthalmological; vulnerary; gene therapy; autoimmune disease; hyperproliferative disorder; cardiovascular disorder; angiogenesis; cerebrovascular disorder; nervous system disorder; infection; skin aging; ocular disorder; wound healing; food additive; preservative.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           New nucleic acid molecules encoding 49 human secreted proteins for diagnosing, preventing, treating or ameliorating medical conditions and used as food additives or preservatives -
                                                                                                        179 YPFREHLLOKKEFAILISLAIWVLVTLELLPILPLINPVITDNGTTCNDFASSGDPNYNL 238
                                                                                                                                                                   TPYHIMRNLRIASRLDSWPQ-GCTQKAIKSIYTLTRPLAFLNSAINPIFYFLMGDHYREM 300
                                                                                                                                                   62 SISDFAFLCTLPILIKSYANDKGTYGDVLCISNRYVLHTNLYTSILFLTFISMDRYLLMK 121
                                                                                                                                                                                                                                                                        182 IYSLCLTLLGFLIPLSVMCFFYYKMVVFLKRRSQQQATÄLPLDKPQRLVVLAVVIFSILF 241
                                                                                                                                                                                                                                                                                            2 AQNLSCENWLATEAILNKYYLSAFYAIEFIFGLLGNVTVVFGYLFCMKNWNSSNVYLFNL 61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      The polynucleotide sequences given in AAC81086 to AAC81134 encode the
                                                                                                                                                                                                             122 YPFREHFLQKKEFAILISLAVWALVTLEVLPMLTFINSVPKEEGSNCIDYASSGNPEHNL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Human secreted protein sequence encoded by gene 37 SEQ ID NO:128.
                                    DB 22; Length 387;
                                                              Indels
                                                                 47;
                                              Pred. No. 7.2e-114,
3; Mismatches 47;
                              73.7%; Score 1216.5; 71.1%; Pred. No. 7.2e
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Disclosure; Page 447-448; 454pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Komatsoulis G;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAB45376 standard; Protein; 258 AA
                                                            43;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (HUMA-) HUMAN GENOME SCI INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            06-APR-2000; 2000WO-US09070.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    14-JAN-2000; 2000US-0176052.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          99US-0128695.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (first entry)
                                                         Matches 224; Conservative
                                                                                                                                                                                                                                                                                                                                                                                               301 LISKFRQYFKSLTSF 315
                                                                                                                                                                                                                                                                                                                                                                                                                         359 LMNQLRHNFKSLTSF 373
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Rosen CA, Ruben SM,
                                            Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WPI; 2000-619228/59.
387 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WO200061628-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 14-FEB-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Homo sapiens.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               19-OCT-2000.
 Sequence
                              Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAB45376:
                                                                                                                                                                                                                                                                                                                                                                  299
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT 9
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cc human secreted proteins given in AAB45308 to AAB45356. AAB45357 to AAB45384 represent human secreted polypeptide sequences and proteins homelogous to them, which are given in the examplification of the present invention. Human secreted proteins have activities based on the tissues and cells the genes are expressed in. Examples of activities include: antiarthritic; immunosuppressive; antirheumatic; antiproliferative; can deallant; vasotropic; cerebroprotective; nontropic; and vulnerary. The polynucleotides and polypeptides can be used to prevent, treat or ameliorate a medical condition in e.g. humans, mice, rabbits, goats, horses, cats, dogs, chickens or sheep. They are also used in diagnosing a pathological condition or susceptibility to a pathological condition or susceptibility to a pathological condition. Disorders which are diagnosed or treated include autoimmune diseases, hyperproliferative disorders, cardiovascular disorders, infections caused by bacteria, viruses and fungi and ocular disorders. The polypeptides can also be used to aid wound healing and can appropriate and coular disorders. The polypeptides can also be used to aid wound healing and coular mannel and coular disorders. The polypeptides can also be used to aid wound healing and coular mine and coular disorders. The polypeptides can also be used to aid wound healing and coular mines and coular mannel and coular disorders.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     epithelial cell proliferation, to prevent skin aging due to sunburn, to maintain organs before transplantation, for supporting cell culture of primary tissues, to regenerate tissues and in chemotaxis. The polypeptides can also be used as a food additive or preservative to increase or decrease storage capabilities, fat content, lipid, protein, carbohydrate, vitamins, minerals, cofactors and other nutritional components, AACB1077 to AACB1085 and AABA5307 represent sequences used in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         cerebroprotective, gynaecological, ADP, adenosine 5'-diphosphate; angina, myocardial infarction; ischaemic attack; preeclampsia; bleeding disorder; carotid endarterectomy; vascular graft surgery; brain disorder; migraine; vascular injury; schizophrenia; eating disorder; depression; angioplasty, peripheral vascular disease; platelet aggregation; restenotic; embolism; thrombocytopaenic purpura; stroke; pertussis toxin-sensitive G protein; G1; disseminated intravascular coagulation; thrombosis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Human; P2-purinergic receptor; P2Y1; cardiant; vasotropic; thrombolytic;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     140 LAVWALVTLEVLPMLTFINSVPKEEGSNCIDYASSGNPEHNLIYSLCLTLLGFLIPLSVM 199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  80 ANDKGTYGDVLCISNRYVLHTNLYTSILFLTFISMDRYLLMKYPFREHFLQKKEFAILIS 139
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            200 CFFYYKMVVFLKRRSQQQATALPLDKPQRLVVLAVVIFSILFTPYHIMRNLRIASRLDSW 259
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    20 YYLSAFYAIEFIFGLLGNVTVVFGYLFCMKNWNSSNVYLFNLSISDFAFLCTLPILIKSY 79
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                61.5%; Score 1014.5; DB 21; Length 258;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   al Similarity 72.9%; Pred. No. 9e-94;
188; Conservative 33; Mismatches 36; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        components. AAC81077 to AAC81085 and AAB45307 the exemplification of the present invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Human P2-purinergic receptor subtype, P2Y1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AA.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            260 PQ-GCTQKAIKSIYTLTR 276
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          241 KOYOCTOVVINSFYIVTR 258
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Homo sapiens.

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The invention relates to ADP (adenosine 5'-diphosphate) receptor, termed as P2Y12 receptor and its corresponding cDNA molecule. P2Y12 receptor is the subtype of P2-purinergic receptor. The P2Y12 receptor is expressed selectively in the platelets and brain, and couples to a pertusals toxinselectively in the platelets and brain, and couples to a pertusals toxinselectively in the platelets and brain, and couples to a method for chart responds to ADP. The invention also relates to a method for identifying an agent which is useful for modulating acute myocardial infarction, unstable angina, chronic stable angina, transient ischaemic retaction, unstable angina, chronic stable angina, transient ischaemic thrombosis, embolism, disseminated intravascular coagulation, thrombotic thrombosis, embolism, disseminated intravascular coagulation, thrombotic chrombosytopaenic purpura or a bleeding disorder; thrombotic and thrombotic complications of allowing angioplasty, carcid endarterectomy, post CABG (coronary artery bypass graft) surgery, vascular graft surgery, ost chast complications. PAY12 receptor provides targets for screening synthetic small molecules and combinatorial or naturally occurring compound libraries to regulate platelet aggregation, vascular injury, or disease as well as schizophrenia, eating disorders, depression, migraine and other brain disorders. The present sequence is human P2-purinergic receptor subtype, P2Y1 related to the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      80 ANDKG-TYGDVLCISNRYVLHTNLYTSILFLTFISMDRYLLMKYPFREHFLQKKEFAILI 138
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           112 FNKTDWIFGDAMCKLQRFIFHVNLYGSILFLTCISAHRYSGVYPLKSLGRLKKKNAICI 171
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     20 YYLSAFYAIEFIFGLLGNVTVVFGYLFCMKNWNSSNVYLFNLSISDFAFLCTLPILIKSY 79
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Novel isolated ADP receptor, termed P2Y12 receptor polypeptide, u
for identifying binding partners and for diagnostic applications
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                8;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          28.7%; Score 474; DB 22; Length 373; 37.3%; Pred. No. 3.7e-39; tive 55; Mismatches 117; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ramakrishnan-Dubridge V, Julius DJ;
                                                                                                                                                                                            Transmembrane_domain_5
                                                                                                                                                                                                                              Transmembrane_domain_6
                                                                                                                                                                                                                                             304..329
/label= Transmembrane_domain_7
                                                 label= Transmembrane_domain_1
                                                                                     'label- Transmembrane_domain_2
                                                                                                                       /label= Transmembrane_domain_3
                                                                                                                                                         Transmembrane_domain_4
             Cocation/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Disclosure; Fig 5A; 108pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                             (CORT-) COR THERAPEUTICS INC.
                                                                                                                                                                                                                                                                                                                                                                                                           99US-0171622
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                                                                                                                                                                          217..241
/label- Ti
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                                                                    . 109
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WPI; 2001-418082/44.
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The invention relates to a novel isolated polypeptide comprising a sequence which is a polymorphic variant of a reference sequence for the sequence which is a polymorphic variant coupled, I (P2RYI) protein or Lits fragment. The polymorphic variant comprises one or more variant amino crids selected from valine at a position 34 and glycine at a position of and function of P2RYI, in expressing P2RYI protein for use in screening function of P2RYI, in expressing P2RYI protein for use in screening of candidate drugs to treat diseases related to P2RYI activity, in P2RYI, and the binding affinity of candidate drugs targeting P2RYI for the treatment of disorders related to platelet aggregation. The haplotyping methods are useful in validating P2RYI as a candidate transpet for treating a specific condition or disease predicted to be target for treating a specific condition or disease associated with P2RYI activity. Or in the design of clinical trials of candidate drugs for treating a specific condition or disease associated with P2RYI activity. Or in the design of clinical trials of candidate drugs for treating a specific condition or disease associated contributed with P2RYI activity. Or in the design of clinical trials of candidate drugs for treating a specific condition or disease associated with P2RYI activity. The transgenic animals are useful for studying continued of therapeutic agents and compounds for disorders related to efficacy of therapeutic agents and compounds for disorders related to efficacy of therapeutic agents and compounds for disorders related to platelet aggregation in a biological system. The present sequence completed protein 1 (P2RYI).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     New purinergic receptor P2X G-protein coupled 1 (P2RY1) gene polymorphic variants, useful e.g. in studying the expression and function of P2RY1 and screening candidate drugs for treating diseases related to P2RY1 activity
                                                                                      198 VMCFFYYKMVVFLKRRSQQQATALPL-DKPQRLVVLAVVIFSILFTPYHIMRNLRIASRL 256
                                                                                                                   139 SLAVWALVTLEVLPMLTFINS-VPKEEGSNCIDYASSGNPEHNLIYSLCLTLLGFLIPLS 197
                                        172 SVLVWLIVVVAISPILFYSGTGVRKNKTITCYDTTSDEYLRSYFIYSMCTTVAMFCVPLV 231
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Purinergic receptor P2Y, G-protein coupled 1; P2RY1; anticoagulant; coagulant; platelet aggregation; haplotyping; drug screening; transgenic animal; human.
                                                                                                                                                                                                              289 DEQTPAMCAFNDRVYATYQVTRGLASLNSCVDPILYFLAGDTFRRRL 335
                                                                                                                                                                                    257 D-SWPQGCT-QKAIKSIYTLTRPLAFLNSAINPIFYFLMGDHYREML 301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Purinergic receptor P2Y, G-protein coupled 1.
                                                                                                                                                                                                                                                                                                                                                  AAU10983 standard; Protein; 373 AA.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (GENA-) GENAISSANCE PHARM INC.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WPI; 2002-083074/11.
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                                                                                                                                                                                                                                                                       80 ANDKG-TYGDVLCISNRYVLHTNLYTSILFLTFISMDRYLLMKYPFREHFLQKKEFAILI 138
                                                                                                                                                                                                                                                                                                         139 SLAVWALVTLEVLPMLTFINS-VPKEEGSNCIDYASSGNPEHNLIYSLCLTLLGFLIPLS 197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          198 VMCFFYYKMVVFLKRRSQQQATALPL-DKPQRLVVLAVVIFSILFTPYHIMRNLRIASRL 256
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               52 YYLPAVYILVFIIGFLGNSVAIWMFVFHMKPWSGISVYMFNLALADFLYVLTLPALIFYY 111
                                                                                                                                                                                                                                                                                                                                                                                                                                172 SVLVWLIVVVAISPILFYSGTGVRKNKTITCYDTTSDEYLRSYFIYSMCTTVAMFCVPLV 231
                                                                                                                                                            20 YYLSAFYAIEFIFGLLGNVTVVFGYLFCMKNWNSSNVYLFNLSISDFAFLCTLPILIKSY 79
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     New purinergic receptor P2Y G-protein coupled 1 (P2RY1) gene polymorphic variants, useful e.g. in studying the expression and function of P2RY1 and screening candidate drugs for treating diseases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Purinergic receptor P2Y, G-protein coupled 1; P2RY1; anticoagulant; coagulant; platelet aggregation; haplotyping; drug screening; transgenic animal; human.
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                                                                  Length 373;
                                                                                                                      Indels
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    289 DFQTPAMCAFNDRVYATYQVTRGLASLNSCVDPILYFLAGDTFRRRL 335
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     257 D-SWPQGCT-QKAIKSIYTLTRPLAFLNSAINPIFYFLMGDHYREML 301
                                                    28.7%; Score 474; DB 23; 37.3%; Pred. No. 3.7e-39; 1ve 55; Mismatches 117;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Location/Qualifiers
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                                                                                                        Matches 107; Conservative
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                                                                                Best Local Similarity
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373 AA;
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  Sequence
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                                                                                                                                                                        G-coupled protein 1 (P2RY1), isoform #1.
Note: This sequence is not shown in the specification but is derived from the human wild type P2RY1 sequence given in Figure 3 (see
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                                                                                                                                                                                                                                                                                                                                           139 SLAVWALVTLEVLPMLTFINS-VPKEEGSNCIDYASSGNPEHNLIYSLCLTLLGFLIPLS 197
                                                                                                                                                                                                                                                                                                                                                                                198 VMCFFYYKMVVFLKRRSQQQATALPL-DKPQRLVVLAVVIFSILFTPYHIMRNLRIASRL 256
                                                                                                                                                                                                                                                                                                                                                                                                                         8; Gaps
                                                                                                                                                                                                                                                                                       20 YYLSAFYAIEFIFGLLGNVTVVFGYLFCMKNWNSSNVYLFNLSISDFAFLCTLPILIKSY 79
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Purinergic receptor P2Y, G-protein coupled 1; P2RY1; anticoagulant; coagulant; platelet aggregation; haplotyping; drug screening; transgenic animal; human.
                                                                                                                                                                                                                                                  Length 373;
                                                                                                                                                                                                                                               28.7%; Score 474; DB 23; Length 37 37.3%; Pred. No. 3.7e-39; Live 55; Mismatches 117; Indels
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/note= "Wild type Val substituted by Gly"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  289 DFQTPAMCAFNDRVYATYQVTRGLASLNSCVDPILYFLAGDTFRRRL 335
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Purinergic receptor P2Y, G-protein coupled 1, isoform #2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                    257 D-SWPQGCT-QKAIKSIYTLTRPLAFLNSAINPIFYFLMGDHYREML 301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Location/Qualifiers
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(first entry)

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Human; G-protein coupled receptor; GPCR; hRUP21; agonist;
                                                                     Human G-protein coupled receptor, hRUP21.
                                                                                                                   inverse agonist; lung cancer
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26-SEP-2000;
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28-APR-2000;
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11-FEB-2000;
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             AAU04375;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Chen R,
rne invention relates to a novel isolated polypeptide compirising a sequence which is a polymorphic variant of a reference sequence for the sequence which is a polymorphic variant of a reference sequence for the purinergic receptor P2V, G-protein coupled, I (PZRYI) protein or its cacks selected from value at a position 34 and glycine at a position of a cacks selected from value at a position 35. The polymorphic variants are useful in studying the expression of for candidate drugs to treat diseases related to PZRYI activity, in studying the effect of the variation on the biological activity, in caudidate drugs to treat diseases related to PZRYI activity, in the treatment of disorders related to platelet aggregation. The carget for treating a specific condition or disease predicted to be target for treating a specific condition or disease predicted to be target for treating a specific condition or disease predicted to be target for treating a specific condition or disease sascociated with PZRYI activity, or in the design of clinical trials of candidate drugs for treating a specific condition or disease associated with PZRYI activity, or in the design of clinical trials of expression of the PZRYI isogenes in vivo, for in vivo screening and testing of drugs targeted against PZRYI protein, and for testing the efficacy of therapeutic against PZRYI protein, and for testing the efficacy of therapeutic against PZRYI protein, and for testing the efficacy of the agence of human purinergic receptor PZY, cepresents the amino acid sequence of human purinergic receptor PZY, and design from the human wild type PZRXI sequence given in Figure 3 (see Aurinosa).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           198 VMCFFYYKMVVFLKRRSQQQATALPL-DKPQRLVVLAVVIFSILFTPYHIMRNLRIASRL 256
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     232 LILGCYGLIVRALIYKDLDNS---PLRRKSIYLGIIVLTVFAVSYIPFHVMKTMNLRARL 288
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 80 ANDKG-TYGDVLCISNRYVLHTNLYTSILFLTFISMDRYLLMKYPFREHFLQKKEFAILI 138
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   139 SLAVWALVTLEVLPMLTFINS-VPKEEGSNCIDYASSGNPEHNLIYSLCLTLLGFLIPLS 197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       New purinergic receptor P2Y G-protein coupled 1 (P2RY1) gene polymorphic variants, useful e.g. in studying the expression and function of P2RY1 and screening candidate drugs for treating diseases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  20 YYLSAFYAIEFIFGLLGNVTVVFGYLFCMKNWNSSNVYLFNLSISDFAFLCTLPILIKSY 79
                                                                                                                                                                                                                                                                    invention relates to a novel isolated polypeptide comprising a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       28.3%; Score 467; DB 23; Length 373; 36.9%; Pred. No. 1.9e-38;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      55; Mismatches 118; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         D-SWPQGCT-QKAIKSIYTLTRPLAFLNSAINPIFYFLMGDHYREML 301
                                                                                                                                                                                                                                        Disclosure; Page -; 79pp; English.
                                                                                                 Tanguay DA;
                                                              (GENA-) GENAISSANCE PHARM INC
                                19-MAY-2000; 2000US-205996P.
   21-MAY-2001; 2001WO-US16432.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          106; Conservative
                                                                                                                                                                                                          related to P2RY1 activity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Local Similarity
                                                                                                 Kazemi A, Koshy B,
                                                                                                                             WPI; 2002-083074/11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              373 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAU10983).
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Dang HT, Lowitz KP;

2000US-0235418. 2000US-0235779. 2000US-0242332.

2000US-0196078. 2000US-0200419. 2000US-0210741. 2000US-0210982. 2000US-0226760.

99US-0171900. 99US-0171901. 99US-0171902.

2000US-0181749 2000US-0189258 2000US-0189259 2000US-0195898 2000US-0195899

99US-0166099.

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                                                                                      Endogenous and non-endogenous versions of human G-protein coupled receptors for direct identification of candidate compounds as agonists, inverse agonists or partial agonists for use as therapeutic agents -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   17 LNKYYLSAFYAIEFIFGLLGNVTVVFGYLFCMKNWNSSNVYLFNLSISDFAFLCTLPILI 76
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 LKMHYLPVIYGIIFLVGFPGNAVVISTYIFKMRPWKSSTIIMLNLACTDLLYLTSLPFLL 90
                                                                                                                                                                                                                                                                                                               The sequence represents a human G-protein coupled receptor (GPCR),
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            25.8%; Score 426; DB 22; Length 337; 34.4%; Pred. No. 2.2e-34; tive 57; Mismatches 126; Indels 10;
                                                                                                                                                                                                                                           Claim 53; Page 114-115; 160pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Best Local Similarity 34.4%
Matches 101; Conservative
WPI; 2001-355616/37.
N-PSDB; AAS07948.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            337 AA;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
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AAU04375 standard; Protein; 337 AA.

RESULT 14 AAU04375

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The invention comprises the amino acid and coding sequence of a human G protein-coupled receptor. The DNA and protein sequences of the invention are useful for developing drugs to prevent or treat (gene therapy): central nervous system diseases; endocrine diseases; metabolic diseases;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       cancer; respiratory diseases; digestive diseases; immune diseases; infilammations; infections; and circulatory diseases. The present amino acid sequence represents the human G protein-coupled receptor of the
77 KSYAN-DKGTYGDVLCISNRYVLHTNLYTSILFLTFISMDRYLLMKYPFREHFLQKKEFA 135
                  136 ILISLAVWALVTLEVLPMLTFINSVPKEEGSNCIDYASSGNPEHNLI--YSLCLTLLGFL 193
                                                                                                                    194 IPLSVMCFFYYKMVVFLKRRSQQQATALPLDKPQRLVVLAVVIFSILFTPYHIMRNLRIA 253
                                                                                                                                       Human; gene therapy; G protein-coupled receptor; drug development; central nervous system disease; endocrine disease; metabolic disease; cancer; respiratory disease; digestive disease; immune disease; inflammation; infection; circulatory disease.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Human kidney-originated G protein-coupled receptor protein TGR30 and encoded DNA, for developing drugs to treat central nervous diseases, endocrine diseases, metabolic diseases and cancer, including gene
                                                                                                                                                                                                SRLDSWPQGCT-QKAIKSIYTLTRPLAFLNSAINPIFYFLMGDHYREMLISKFR 306
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Miyajima N;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Claim 1; Page 88-90; 98pp; Japanese.
                                                                                                                                                                                                                                                                                   AA015399 standard; protein; 337 AA.
                                                                                                                                                                                                                                                                                                                                                                          Human G protein-coupled receptor.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Miwa M, Ito T, Shintani Y,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       17-JAN-2002; 2002WO-JP00270.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   18-JAN-2001; 2001JP-0010714, 30-MAR-2001; 2001JP-0102484.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (TAKE ) TAKEDA CHEM IND LID.
                                                                                                                                                                                                                                                                                                                                          27-SEP-2002 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WPI; 2002-566800/60.
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25.8%; Score 426; DB 23; Length 337; 34.4%; Pred. No. 2.2e-34; Live 57; Mismatches 126; Indels 10

Best Local Similarity 34.4 Matches 101; Conservative

Query Match

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77 KSYAN-DKGTYGDVLCISNRYVLHTNLYTSILFLTFISMDRYLLMKYPFREHFLQKKEFA 135
                                                                                                                                                                                  136 ILISLAVWALVTLEVLPMLTFINSVPKEEGSNCIDYASSGNPEHNLI--YSLCLTLLGFL 193
                                                                                                                                                                                                                                                                       194 IPLSVMCFFYYKMVVFLKRRSQQQATALPLDKPQRLVVLAVVIFSILFTPYHIMRNLRIA 253
                                                                                                                                                                                                                                                                                                                     209 LPLVIVTLCYTTIIHTLTHGLQTDSCL--KQKARRLTILLLLLAFYVCFLPFHILRVIRIE 266
         92
                            | :|| || || :| || || || 31 LXMHYLPVIYGIIFLVGFPGNAVVISTYIFKMRPWKSSTIIMLNLACTDLLXLTSLPFLI 90
                                                                                                                                                                                                                   151 VVACAVVWIISLVAVIPMTFLITSTNRTNRSACLDLTSS--DELNTIKWYNLILTATTFC
17 LNKYYLSAFYAIEFIFGLLGNVTVVFGYLFCMKNWNSSNVYLFNLSISDFAFLCTLPILI
                                                                                                                                                                                                                                                                                                                                                                                         267 SRLKS--ISCSIENQIHEAYIVSRPLAALNTFGNLLLYVVVSDNFQQAVCSTVR 318
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3: /cgn2_6/ptodata/1/iaa/6A_COMB.pep:*
4: /cgn2_6/ptodata/1/iaa/6B_COMB.pep:*
5: /cgn2_6/ptodata/1/iaa/pcyuC_COMB.pep:*
6: /cgn2_6/ptodata/1/iaa/pcyuC_COMB.pep:*
GenCore version 5.1.3
Copyright (c) 1993 - 2003 Compugen Ltd.
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## SUMMARIES

KIES	Description		' a source of	-	'a acinemas	sequence 4, A	sequence 3/4,	sequence 5/3,	, 07	Seguence 36,	Sequence 20,		Sequence 32	Segmence 28		Segmence 30	1 Seguence 37,	O Sequence	Sections	Seguence	Sequence	34A-2 Seguence 2 1	581B-2 Sequence	.2 Sequence 2	5248-3	anienber	Sequence 3,	. ~	'sc aniente oo'
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US-08-012-988A-2 US-08-450-393A-5 US-09-239-938-1 PCT-US95-00476-5 US-08-33-752-10 US-08-467-948A-30 US-08-513-974B-36 US-08-513-974B-372 US-08-513-974B-372 US-09-61-244-2 US-09-61-244-2 US-09-61-244-2 US-09-61-244-2 US-09-61-244-2 US-09-61-244-2 US-09-61-244-2 US-09-61-248-38 US-09-61-248-38	S	RECEPTOR LLP Fsion #1	s e	NTVN     ITN	1
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                                       181 LIYSLÇLTLLGFLIPLSVMCFFYYKMVVFLKRRSQQQATALPLDKPQRLVVLAVVIFSIL 240
                                                                                                                   241 FTPYHIMRNLRIASRLDSWPQ-GCTQKAIKSIYTLTRPLAFLNSAINPIFYFLMGDHYRE 299
125 KYPFREHLLQKKEFAILISLAIWULVTLELLPILPLINPVITDNGTTCNDFASSGDPNYN 184
                                                         Length 373;
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28.7%; Score 474; DB 2; Length 37.
Best Local Similarity 36.6%; Pred. No. 1.6e-31;
Matches 105; Conservative 58; Mismatches 116; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SOFTWARE: PatentIn Release #1.0, Version #1.30 CURRENT APPLICATION DATA: US/08/559,524A FILING DATE: 15-NOV-1995
                                                                                                                                                                                                                                                                                                                                      Sequence 4, Application US/08559524A
Patent No. 5871963
GENERAL INFORMATION: Pamela B.
APPLICANT: Jantzen, Hans-Michael
TITLE OF INVENTION: NOVEL PURINERGIC RECEPTOR
NUMBER OF SEQUENCES: 14
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         044481-5010-00-US
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STREET: 1800 M Street, N.W.
CITY: Washington
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SYSTEM: PC-DOS/MS-DOS
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NAME: Adler, Reid G.
REGISTRATION NUMBER: 30,988
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TELECOMMUNICATION INFORMATION:
TELEPHONE: 202-467-7000
TELEFAX: 202-467-7176
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INFORMATION FOR SEQ ID NO: 4:
SEQUENCE CHARACTERISTICS:
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MEDIUM TYPE: Floppy
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20036-5869
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TOPOLOGY: 1
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                                                                                                                                                                                                                                                                                                       RESULT 3
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      65 LSVSDLAFLCTLPMLIRSYANGNWIYGDVLCISNRYVLHANLYTSILFLAFISIDRYLII 124
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1 MAQNLSCENWLATEAILNKYYLSAFYAIEFIFGLLGNVTVVFGYLFCMKNWNSSNVYLFN 60
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                                                       121 KYPFREHFLOKKEFAILISLAVWALVTLEVLPMLTFINSVPKEEGSNCIDYASSGNPEHN 180
                                                                              181 LIYSLCLTLLGFLIPLSVMCFFYKMVVFLKRSQQQATALPLDKPQRLVVLAVVIFSIL 240
                                                                                                                                                        241 FTPYHIMRNLRIASRLDSWPQ-GCTQKAIKSIYTLTRPLAFLNSAINPIFYFLMGDHYRE 299
                                                                                                                                                                                                                                    245 FIPYHVMRNVRIASRLGSWKQYQCTQVVINSFYIVTRALGFLNSVINPVFYFLLGDHFRD 304
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         74.3%; Score 1226.5; DB 3; Length 334; 71.5%; Pred. No. 3.5e-93; Live 42; Mismatches 47; Indels 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SOFTWARE: PatentIn Release #1.0, Version #1.30 CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AFFLICANT: Jantzen, Hans-Michael
TITLE OF INVENTION: NOVEL PURINERGIC RECEPTOR
NUMBER OF SEQUENCES: 14
CORRESPONDENCE ADDRESS: 8 BOCKIUS LLP
STREET: 1800 M Street, N.W.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     REFERENCE/DOCKET NUMBER: 044481-5010-01-US TELECOMMUNICATION INFORMATION: TELEPHONE: 202-467-7000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICATION NUMBER: US/08/749,707
FILING DATE: 15-NOV-1996
CLASSIFICATION: 536
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      E: Floppy disk
IBM PC compatible
SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                            NB2-08-749-707-2
Sequence 2, Application US/08749707
Patent No. 6063582
GENERAL INFORMATION:
APPLICANT: Conley, Pamela B.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ATTORNEY/AGENT INFORMATION:
NAME: Adler, Reid G.
REGISTRATION NUMBER: 30,988
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     INFORMATION FOR SEQ ID NO: 2: SEQUEDNCE CHARACTERISTICS: LENGTH: 334 amino acids TYPE: amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Matches 226; Conservative
                                                                                                                                                                                                                                                                                                                                      305 MLMNQLRHNFKSLTSF 320
                                                                                                                                                                                                                                                                                                 300 MLISKFRQYFKSLTSF 315
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ; TOPOLOGY: linear; MOLECULE TYPE: protein US-08-749-707-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COMPUTER READABLE FORM: MEDIUM TYPE: Floppy
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Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              COMPUTER: IBM PC OPERATING SYSTEM:
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80 ANDKG-TYGDVLCISNRYVLHTNLYTSILFLTFISMDRYLLMKYPFREHFLQKKEFAILI 138
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245 FIPHHYMRNVRIASRLGSWKQYQCTQVVINSFYIVTRALGFLNSVINPVFYFLLGDHFRD 304
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FILING DATE:
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                                                  US-08-513-974B-374
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232 LILGCYGLIVRALIYKDLDNS---PLRRKSIYLVIIVLTVFAVSYIPFHVMKTMNLRARL 288
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    80 ANDKG-TYGDVLCISNRYVLHTNLYTSILFLTFISMDRYLLMKYPFREHFLQKKEFAILI 138
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      33 LILGCYGLIVRALIYKDLDNS---PLRRKSIYLVIIVLTVFAVSYIPFHVMKTMNURARL 288
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28.7%; Score 474; DB 3; Length 373;
Best Local Similarity 36.6%; Pred. No. 1.6e-31;
Matches 105; Conservative 58; Mismatches 116; Indels
                                                                                   289 DFQTPEMCAFNDRVYATYQVTRGLASLNSCVDPILYFLAGDTFRRRL 335
                                                             257 D-SWPQGCT-QKAIKSIYTLTRPLAFLNSAINPIFYFLMGDHYREML 301
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COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/749,707
FILING DATE: 15-NOV-1996
ATONEY/AGENT INFORMATION:
                                                                                                                                                                                                                                         GENERAL INFORMATION:
APPLICANT: Conley, Pamela B.
APPLICANT: Conley, Hans-Michael
TILE OF INVENTION: NOVEL PURINERGIC RECEPTOR
NUMBER OF SEQUENCES: 14
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 044481-5010-01-US
                                                                                                                                                                                                                                                                                                                                                                            ADDRESSEE: MORGAN, LEWIS & BOCKIUS LLP STREET: 1800 M Street, N.W.
                                                                                                                                                                                                           Sequence 4, Application US/08749707
Patent No. 6063582
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NAME: Adler, Reid G.
REGISTRATION NUMBER: 30,988
REFERENCE/DOCKET NUMBER: 044
TELECOMMUNICATION:
TELEPHONE: 202-467-7000
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INFORMATION FOR SEQ ID NO: 4:
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LENGTH: 373 amino acid
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STATE: D.C.
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20036-5869
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                                                                                                                                                                 RESULT 4
US-08-749-707-4
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APPLICANT: Fujii, Ryo
APPLICANT: Ohtaki, Tetsuya
APPLICANT: Pukusumi, Shoji
APPLICANT: Fukusumi, Shoji
APPLICANT: Fukusumi, Shoji
APPLICANT: Ohgi, Kazuhiro
TITLE OF INVENTION: G PROTEIN COUPLED RECEPTOR PROTEIN,
TITLE OF INVENTION: PRODUCTION, AND USE THEREOF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       E: DIKE, BRONSTEIN, ROBERTS & CUSHMAN, LLP 130 Water Street
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICATION NUMBER: PCT/JP95/01599 FILING DATE: 10-AUG-1995 PRIOR APPLICATION DATA:
Sequence 374, Application US/08513974B Patent No. 6114139
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
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FILING DATE: 19-AUG-1995
PRIOR APPLICATION DATA:
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FILING DATE: 16-MAR-1995
PRIOR APPLICATION DATA:
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FILING DATE: 20-JAN-1995
PRIOR APPLICATION DATA:
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FILING DATE: 28-DEC-1994
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FILING DATE: 11-ANG-1994
PRIOR APPLICATION DATA:
APPLICATION NUMBER: JP 6-189273
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02-NOV-1994
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30-SEP-1994
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11-AUG-1945
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INFORMATION FOR SEQ ID NO: 374:
SEQUENCE CHARACTERISTICS:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NUMBER OF SEQUENCES: 380
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                                                                                                                                       Hinuma, Shuji
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APPLICATION NUMBER: US
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PRIOR APPLICATION DATA:
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APPLICATION NUMBER:
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FILING DATE: 30-SE
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                                                                                                                                                                                         Hosoya,
                                                                                          GENERAL INFORMATION:
APPLICANT: Hinuma
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STREET: 100
TWY: Boston
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                                                                                                                                                                                                                                                                                                                                 61 LSISDFAFLCTLPILIKSYANDKG-TYGDVLCISNRYVLHTNLYTSILFLTFISMDRYLL 119
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       202 SYFVYSMCTTVFWFCIPFIVILGCYGLIVKALIYKDLDNS---PLRRKSTYLVIIVLTVF 258
                                                                                                                                                                                                                                                                                                                                                            142 VVHPLKSLGRLKKKNAVYVSSLVMALVVAVIAPILFYSGIGVRNKTITCYDITADEYLR 201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      179 HNLIYSLCLTLLGFLIPLSVMCFFYYKMVVFLKRRSQQQATALPL-DKPQRLVVLAVVIF 237
                                                                                                                                                                                                  Indels 17; Gaps
                                                                                                                                                                                                                                         10 WLA----TEAILNK----YYLSAFYAIEFIFGLLGNVTVVFGYLFCMKNWNSSNVYLFN 60
                                                                                                                                                                                                                                                                   22 WAAGNATTKCSLTKTGFQFYYLPTVYILVFITGFLGNSVAIWMFVFHMRPWSGISVYMFN 81
                                                                                                                                                28.7%; Score 473.5; DB 3; Length 362; 35.9%; Pred. No. 1.7e-31; tive 57; Mismatches 122; Indels 17.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT: Hinuma, Shuji
APPLICANT: Hosoya, Masaki
APPLICANT: Fujii, Ryo
APPLICANT: Fujii, Ryo
APPLICANT: Fukusumi, Shoji
APPLICANT: Fukusumi, Shoji
APPLICANT: Ohqii, Kazuhiro
ITILE OF INVENTION: PRODUCTION, AND USE THEREOF
TITLE OF INVENTION: PRODUCTION, AND USE THEREOF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 E: DIKE, BRONSTEIN, ROBERTS & CUSHMAN, LLP 130 Water Street
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICATION NUMBER: US/08/513,974B
FILING DATE: 14-SEP-1995
CLASSIFICATION: 536
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 373, Application US/08513974B Patent No. 6114139 GENERAL INFORMATION:
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FILING DATE: 19-AUG-1995
362 amino acids
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                                                                                                                                                                                 Best Local Similarity 35.9%
Matches 110; Conservative
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                                                                   TOPOLOGY: linear MOLECULE TYPE: peptide
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                          amino acid
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                                             STRANDEDNESS:
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                                                                                                              US-08-513-974B-374
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  LENGTH:
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78 SYA-NDKGTYGDVLCISNRYVLHTNLYTSILFLTFISMDRYLLMKYPFREHFLQKKEFAI 136
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    197 SVMCFFYYKMVVFLKRRSQQQATALPLDKPQ--RLVVLAVVIFSILFTPYHIMRNLRIAS 254
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       152 RVAAVVWVLVLACQAPVLYFVTTSVRGTRITCHDTSARELFSHFVAYSSVMLGLLFAVPF 211
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               19 KY-YLSAFYAIEFIFGLLGNVTVVFGYLFCMKNWNSSNVYLFNLSISDFAFLCTLPILIK 77
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PRIOR APPLICATION DATA:
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FILING DATE: 11-AUG-1994
ATTORNEY/AGENT INFORMATION:
           APPLICATION DATE: 16-MAR PRIOR APPLICATION DATA:
APPLICATION NUMBER: JP 7-007177
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APPLICATION NUMBER: JP 7-057186
FILING DATE: 16-MAR-1995
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NAME: Resnick, David S. REGISTRATION NUMBER: 34,7 REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          617-523-3400
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Best Local Similarity
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US-08-153-848-28
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No. 5759804el Seven Transmembrane Receptors
64
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PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/977,452
FILING DATE: 17-NOV-1992
ATTORNEY/AGENT INFORMATION:
NAME: No. 5759804and, Greta E.
REGISTRATION NUMBER: 35,302,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 28, Application US/09299843A Patent No. 6107475 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TELEPHONE: (312) 474-6300
TELEFAX: (312) 474-0448
TELEX: 25-3856
INFORMATION FOR SEQ ID NO: 32:
SEQUENCE CHARACTERISTICS:
LENGTH: 355 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        REFERENCE/DOCKET NUMBER: 31
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                  COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                 CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             , MOLECULE TYPE: protein US-08-153-848-32
                                   NUMBER OF SEQUENCES:
                 TITLE OF INVENTION:
                                                                                                                         CITY: Chicago
STATE: Illinois
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ZIP: 60606
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                                                                                                           STREET:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       136 ILISLAVWALVTLEVLPMLTFINSVPKEEGSNCI-DYASSGNPEHNLIYSLCLTLLGFLI 194
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PLSVMCFFYYKMY-VFLKRRSQQQATALPLDKPQRLVVLAVVIFSILFTPYHIMRNLRIA 253
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APPLICANT: Gray, Patrick W.
APPLICANT: Schwelkart, Vicki L.
TITLE OF INVENTION: No. 5759804el Seven Transmembrane Receptors
NUMBER OF SEQUENCES: 64
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ouery Match
21.4%; Score 353; DB 1; Length 355;
Best Local Similarity 28.1%; Pred. No. 1.2e-21;
Matches 84; Conservative 66; Mismatches 133; Indels
                                                                                                                               6300 Sears Tower, 233 South Wacker Drive
                                                                                               ADDRESSEE: Marshall, O'Toole, Gerstein, Murray ADDRESSEE: Bicknell
                                                                                                                                                                                                                                                                                                     SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/153,848
                                                                                                                                                                                                                                                                                                                                                                                               PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/977,452
                                                                                                                                                                                                                                                                                       PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NAME: No. 5759804and, Greta E. REGISTRATION UNBER: 35,302
REFERENCE, DOCKET NUMBER: 31794
TELECOMMUNICATION INFORMATION:
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Patent No. 5759804
GENERAL INFORMATION:
APPLICANT: Godiska, Ronald
APPLICANT: Gray, Patrick W.
APPLICANT: Schweikart, Vicki L.
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Schweikart, Vicki L.
                                                                                                                                                                                                                                                  E: Floppy disk
IBM PC compatible
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TELEX: 25-3856
INFORMATION FOR SEQ ID NO: 28:
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                                                                                                                                                                                                                                                                                                                                                                                                                                    FILING DATE: 17-NOV-1992
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE CHARACTERISTICS:
LENGTH: 355 amino acids
TYPE: amino acid
                                                                                                                                                                                                                            COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     / MOLECULE TYPE: protein US-08-153-848-28
                                                                                                                                                                                                                                                                                                                                                                                 CLASSIFICATION: 514
                                                                                                                                                                                                                                                                                       OPERATING SYSTEM:
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Ouery Match 21.4%; Score 353; DB 1; Length 355;
Best Local Similarity 28.1%; Pred. No. 1.2e-21;
Matches 84; Conservative 66; Mismatches 133; Indels 16; Gaps
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APPLICANT: Gray, Patrick W.
APPLICANT: Schweikart, Vicki L.
TITLE OF INVENTION: No. 6107475el Seven Transmembrane Receptors
NUMBER OF SEQUENCES: 66
ADDRESSEE: Marshall, O'Toole, Gerstein, Murray & ADDRESSEE: Bicknell
                                                   6300 Sears Tower, 233 South Wacker Drive
                                                                                                                                                                                                                              COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PartentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/153,848
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APPLICANT: Gray, Patrick W.
APPLICANT: Schweikart, Vicki L.
TITLE OF INVENTION: No. 6107475el Seven Transmembrane Receptors
NUMBER OF SEQUENCES: 66
CORRESPONDENCE ADDRESS:
                                                                                                            ADDRESSEE: Marshall, O'Toole, Gerstein, Murray & ADDRESSEE: Borun
                                                                                                                                                       STREET: 6300 Sears Tower, 233 South Wacker Drive
                                                                                                                                                                                                                                                                           COMPUTER READBALE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            REFERENCE/DOCKET NUMBER: 27866/32059B
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 09/088,337
FILING DATE: 01-UNN-1998
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/153,848
FILING DATE: 17-NOV-1993
PRIOR APPLICATION NUMBER: US 07/977,452
FILING DATE: 17-NOV-1992
ATTORNEY AGENT INFORMATION:
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APPLICATION NUMBER: US/09/299,843A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NAME: Jill E. Uhl
REGISTRATION NUMBER: 43,213
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TELEFAX: (312) 474-0448
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Matches 84; Conservative
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CLASSIFICATION: 435
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          linear
                                                                                                                                                                                                           STATE: Illinois
COUNTRY: USA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    16 ILNKYYLSAFYAIEFIFGLLGNVTVVFGYLFCMKNWNSSNVYLFNLSISDFAFLCTLPIL 75
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             21.4%; Score 353; DB 3; Length 355; 28.1%; Pred. No. 1.2e-21; tive 66; Mismatches 133; Indels 16;
                                     ADDRESSEE: Marshall, O'Toole, Gerstein, Murray & ADDRESSEE: Borun
STREET: 6300 Sears Tower, 233 South Wacker Drive
                                                                                                                                                                                                                                                                                         SOFTWARE: Patentin Release #1.0, Version #1.25 CURRENT APPLICATION DATA: APPLICATION NUMBER: US/09/299,843A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NAME: J111 E. UNI
REGISTRATION NUMBER: 43,213
REFERENCE/DOCKET NUMBER: 27866/32059B
TELECOMMUNICATION INFORMATION:
TELEPHONE: (312) 474-6300
TELEFAX: (312) 474-0448
                                                                                                                                                                                                                                                                                                                                                                            CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION DNHAR:
APPLICATION UNBER:
FILING DATE: 01-UN-1998
PRIOR APPLICATION DATA:
APPLICATION UNBER: US 08/153,848
FILING DATE: 17-NOV-1993
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICATION NUMBER: US 07/977,452
FILING DATE: 17-NOV-1992
ATTORNEY/AGENT INFORMATION:
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                                                                                                                                                                                                                       MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC COMPATIBLE
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     INFORMATION FOR SEQ ID NO: 28:
SEQUENCE CHARACTERISTICS:
LENGTH: 355 amino acids
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amino acid
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                                                                                                                                                                                                         COMPUTER READABLE FORM:
                       CORRESPONDENCE ADDRESS:
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                                                                                                                                      STATE: Illinois
COUNTRY: USA
                                                                              STREET: boccornwy: Chicago
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195 PLSVMCFFYKKMV-VFLKRRSQQQATALPLDKPQRLVVLAVVIFSILFTPYHIMRNLRIA 253
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21.4%; Score 353; DB 3; Length 355;
28.1%; Pred. No. 1.2e-21;
Live 66; Mismatches 133; Indels 16; Gaps
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                                                                                                            28 VFGTVFLSIFYSVIFAIGLVGNLLVVFALTNSKKPKSVTDIYLLNLALSDLLFVATLPFW 87
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US-09-088-337B-32
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88 THYLINEKGLH-NAMCKFTTAFFFIGFFGSIFFITVISIDRYLAIVLAANSMNNRTVQHG 146
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                                                      APPLICANT: Godiska, Ronald
Gray, Patrick W.
Schweikart, Vicki L.
TITLE OF INVENTION: NO. 6348574el Seven Transmembrane Receptors
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                                                                                                                                                         CORRESPONDENCE ADDRESS:
ADDRESSEE: Marshall, O'Toole, Gerstein, Murray &
                                                                                                                                                                                                                          STREET: 6300 Sears Tower, 233 South Wacker Drive
                                                                                                                                                                                                                                                                                                                                                                                                                    SOFTWARE: PatentIn Release #1.0, Version #1.25
                                                                                                                                                                                                                                                                                                                                                                                                                      CURRENT APPLICATION DATA:

APPLICATION NUMBER: US/09/088,337B
FILING DATE: 01-Jun-1998
FILING DATE: 01-Jun-1998
CLASSIFICATION DATA:

APPLICATION DATA:
APPLICATION DATA:
APPLICATION NUMBER: US 08/153,848
FILING DATE: 17-NOV-1993
APPLICATION NUMBER: US 07/977,452
ATTONREY/AGENT INFORMATION:
NAME: NO. 6348574and, Greta E.
REGISTRATION UNDHERE: 35,302
                                                                                                                                                                                                                                                                                                                                                                        COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TOPOLOGY: linear
MOLECULE TYPE: protein
SEQUENCE DESCRIPTION: SEQ ID NO: 28:
US-09-088-3379-28
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      REFERENCE/DOCKET NUMBER: 31794
Sequence 20, Application US/09088337B Patent No. 6348574 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TELECOMMUNICATION INFORMATION:
TELEPHONE: (312) 474-6300
TELEFAX: (312) 474-0448
                                                                                                                                                                                                                                                                                                                                                       MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  LENGTH: 355 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      INFORMATION FOR SEQ ID NO: 28: SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                 COMPUTER READABLE FORM:
                                                                                                                                                                                                             Borun
                                                                                                                                                                                                                                                                    STATE: Illinois
COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TYPE: amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         84; Conservative
                                                                                                                                                                                                                                              CITY: Chicago
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Best Local Similarity
                                                                                                                                                                                                                                                                                                               60606
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76 IKSYANDKGTYGDVLCISNRYVLHTNLYTSILFLTFISMDRYLLMKYPFREHFLQKKEFA 135
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|::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |
                                                                                                                                                   APPLICANT: Godiska, Ronald
Gray, Patrick W.
Schweikart, Vicki L.
TITLE OF INVENTION: No. 6348574el Seven Transmembrane Receptors
NUMBER OF SEQUENCES: 66
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                136 ILISLAVWALVTLEVLPMLTFINSVPKEEGSNCI-DYASSGNPEHNLIYSLCLTLLGFLI 194
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ADDRESSEE: Marshall, O'Toole, Gerstein, Murray &
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      STREET: 6300 Sears Tower, 233 South Wacker Drive
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
RAPLICATION NUMBER: US/09/088,337B
FILING DATE: 01-Jun-1998
CLASSIFICATION: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/153,848
FILING DATE: 17-NOV-1993
APPLICATION NUMBER: US 07/977,452
FILING DATE: 17-NOV-1992
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS
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MOLECULE TYPE: protein
SEQUENCE DESCRIPTION: SEQ ID NO: 32:
US-09-088-337B-32
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ATTORNEY/AGENT INFORMATION:
NAME: NO. 6348574and, Greta E.
REGISTRATION NUMBER: 35,302
REFERENCE/DOCKET NUMBER: 31794
Sequence 32, Application US/09088337B Patent No. 6348574 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TELECOMMUNICATION INFORMATION:
TELEPHONE: (312) 474-6300
TELEFAX: (312) 474-0448
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MEDIUM TYPE: Floppy disk
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TYPE: amino acid
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INFORMATION FOR SEQ ID NO: 32:
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Matches 84; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CITY: Chicago
STATE: Illinois
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               COUNTRY: USA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   / Match 21.4%; Score 353; DB 5; Length 355; Local Similarity 28.1%; Pred. No. 1.2e-21; nes 84; Conservative 66; Mismatches 133; Indels
                                                               APPLICANT: Godiska, Ronald
APPLICANT: Gray, Patrick W.
APPLICANT: Schweikart, Vicki L.
TITLE OF INVENTION: Novel Seven Transmembrane Receptors
NUMBER OF SEQUENCES: 64
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                         ADDRESSEE: Marshall, O'Toole, Gerstein, Murray &
                                                                                                                                                                                                                               STREET: 6300 Sears Tower, 233 South Wacker Drive CITY: Chicago
                                                                                                                                                                                                                                                                                                                              COMPUTER READBLE FORM:
MEDIUM TYPE: Floppy disk
COMBUTER: IBW PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: PCT/US93/11153
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CLASSIFICATION:
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/977,452
FILING DATE: 17-NOV-1992
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ; Sequence 32, Application PC/TUS9311153
            PCT-US93-11153-28; Sequence 28, Application PC/TUS9311153; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NAME: NO.1and, Greta E.
REGISTRATION NUMBER: 35,302
REFRENCE/DOCKET NUMBER: 31794
TELECOMMUNICATION INFORMATION:
TELEPAN: (312) 474-6300
TELEFAX: (312) 474-6448
TELEX: 25-3856
INFORMATION FOR SEQ ID NO: 28:
SEQUENCE CHARACTERISTICS:
LENGTH: 355 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   31794
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MOLECULE TYPE: protein
PCT-US93-11153-28
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RESULT 13
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195 PLSVMCFFYYKWY-VFLKRRSQQQATALPLDKPQRLVVLAVVIFSILFTPYHIMRNLRIA 253
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          21.4%; Score 353; DB 5; Length 355; 28.1%; Pred. No. 1.2e-21; tive 66; Mismatches 133; Indels 16;
GENERAL INFORMATION:
APPLICANT: Godiska, Ronald
APPLICANT: Gray, Patrick W.
APPLICANT: Schweikart, Vicki L.
APPLICANT: Schweikart, Vicki L.
TITLE OF INVENTION: Novel Seven Transmembrane Receptors
NUMBER OF SEQUENCES: 64
                                                                                                                                                                    ADDRESSEE: Marshall, O'Toole, Gerstein, Murray & ADDRESSEE: Bicknell
STREET: 6300 Sears Tower, 233 South Wacker Drive
                                                                                                                                                                                                                                                                                                                                                              MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC Compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
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CURRENT APPLICATION DATA:
APPLICATION NUMBER: PCT/US93/11153
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CLASSIFICATION:
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/977,452
FILING DATE: 17-NOV-1992
ATTORNEY/AGENT INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TELECOMMUNICATION INFORMATION:
TELEPHONE: (312) 474-6300
TELERAX: (312) 474-6448
TELERAX: (312) 474-0448
TELERX: 55-3856
INFORMATION FOR SEQ ID NO: 32:
SEQUENCE CHRRACTERISTICS:
LENGTH: 355 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      35,302
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         REGISTRATION NUMBER: 35, REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Matches 84; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NAME: Noland, Greta E.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ; TOPOLOGY: linear; MOLECULE TYPE: protein PCT-US93-11153-32
                                                                                                                                                                                                                                                                                                                                          COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy
                                                                                                                                                          CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                              Abox..
STREET: box..
CITY: Chicago
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local Similarity
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TITLE OF INVENTION: G PROTEIN COUPLED RECEPTOR PROTEIN, TITLE OF INVENTION: PRODUCTION, AND USE THEREOF
                                                                                                                                              TUMBER OF SEQUENCES: 380
CORRESPONDENCE ADDRESS:
ADDRESSE: DIKE, BRONSTEIN, ROBERTS & CUSHMAN, LLP
STREET: 130 Water Street
                                                                                                                                                                                                                                                                                                                                                                                                         OPERATING SYSTEM: PC_DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PRIOR APPLICATION 10ATA
APPLICATION DATA:
FILING DATE: 10-AUG-1995
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 97 7-093989
FILING DATE: 19-AUG-1995
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 37 7-057186
FILING DATE: 16-WAR-1995
PRIOR APPLICATION NUMBER: 37 7-057186
FILING DATE: 16-WAR-1995
PRIOR APPLICATION NUMBER: 37 7-057186
FILING DATE: 30-JAN-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICATION NUMBER: US/08/513,974B
FILING DATE: 14-SEP-1995
CLASSIFICATION: 536
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICATION NUMBER: JP 6-236356
FILING DATE: 30-SEP-1994
RUCR APPLICATION DATA:
APPLICATION NUMBER: JP 6-189274
FILING DATE: 11-AUG-1994
RUCR APPLICATION DATA:
APPLICATION DATA:
APPLICATION NUMBER: JP 6-189273
FILING DATE: 11-AUG-1945
RICR DATE: 11-AUG-1945
APPLICATION NUMBER: JP 6-189272
RPLICATION NUMBER: JP 6-189272
RPLICATION NUMBER: JP 6-189272
RTICK DATE: 11-AUG-1994
ATTORNEY/AGENT INFORMATION:
NAME: RESTALCA, DAVIG S.
REGISTRALION NUMBER: 34,335
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FILING DATE: 28-DEC-1994
PRIOR APPLICATION DATA:
APPLICATION DATA:
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PRIOR APPLICATION DATA:
APPLICATION DATA:
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FILING DATE: 02-NOV-1994
                                                                                                                                                                                                                                                                                                                                                                                 COMPUTER: IBM PC Compatible OPERATING SYSTEM: PC-DOS/MS-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TELECOMMUNICATION INFORMATION:
TELEPHONE: 617-523-3400
                       Fujii, Ryo
Ohtaki, Tetsuya
Fukusumi, Shoji
Ohgi, Kazuhiro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           INFORMATION FOR SEQ ID NO: 39: SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                               Floppy disk
       Hosoya, Masaki
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LENGTH: 328 amino acids TYPE: amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      617-523-6440
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PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                     COMPUTER READABLE FORM:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TOPOLOGY: linear
MOLECULE TYPE: peptide
                                                                                                                                                                                                                                                                                               USA
                                                                                                                                                                                                                                                                                                                                                               MEDIUM TYPE:
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                                                                                                                                                                                                                                                                      STATE: MA
APPLICANT:
APPLICANT:
                                                                   APPLICANT:
APPLICANT:
                                              APPLICANT:
                                                                                                                                                                                                                                                                                           COUNTRY:
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US-08-513-974B-39

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149 GVVWLAVTAQCLPTAVFAATGIQRNRTVCYDLSPPILSTRYLPYGMALTVIGFLLPFIAL 208
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29.6%; Pred. No. 1.8e-20;
tive 54; Mismatches 136; Indels 10; Gaps
                                                                                                           22 LSAFYAIEFIFGLLGNVTVVFGYLFCMKNWNSSNVYLFNLSISDFAFLCTLPILIKSYA- 80
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                                                                                                                                                                                                                                                                                                                                                                                                                                            266 RSTPGVSCPVLETFAAAYKGTRPFASVNSVLDPILFYFTQQKFR 309
Query Match 20.5%
Best Local Similarity 29.6%
Matches 84; Conservative
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Search completed: April 2, 2003, 15:18:31 Job time: 20 secs

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GenCore version 5.1.3
Copyright (c) 1993 - 2003 Compugen Ltd.
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OM protein - protein search, using sw model

April 2, 2003, 15:17:12; Search time 23 Seconds (without alignments) 842.614 Million cell updates/sec Run on:

US-09-891-138A-2

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BLOSUM62 Gapop 10.0 , Gapext 0.5 Scoring table:

248812 seqs, 61136040 residues Searched:

Total number of hits satisfying chosen parameters:

Minimum DB seq length: 0 Maximum DB seq length: 200000000

Post-processing: Minimum Match 0% Maximum Match 100% Listing first 45 summaries

Database :

Published\_Applications\_AA:\*

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/cgn2\_6/ptodata/2/pubpaa/US06\_PUBCOMB.pep:\*
/cgn2\_6/ptodata/2/pubpaa/US07\_PUBCOMB.pep:\*
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SUMMARIES

Score 1231.5 1224.5 1224.5 479 475.5 472.5 472.5 373.5 373.5 336.5 336.5 336.5 336.5	Result		<b>*</b> Orange			COLLINATES	
74.6 334 10 US-09-765-034-2 29.0 373 9 US-10-270-587-2 28.8 299 9 US-10-270-135-7 28.7 373 9 US-10-092-135-6 28.7 373 9 US-10-092-135-6 28.6 362 9 US-10-092-135-6 25.8 337 9 US-10-092-135-3 25.8 337 9 US-10-092-135-3 25.8 337 9 US-10-027-135-3 25.8 337 9 US-10-027-135-3 25.8 37 9 US-10-027-135-3 25.8 37 9 US-10-027-136-3 25.8 37 9 US-10-027-135-3 25.8 37 9 US-10-027-135-3 25.8 37 9 US-10-027-135-3 25.8 37 9 US-10-027-135-4 25.8 37 9 US-10-027-135-4 25.8 37 9 US-10-027-135-3 25.8 37 9 US-10-027-135-3 25.8 37 9 US-10-127-136-4 25.8 37 10 US-09-943-798-4 26.4 355 10 US-09-9482-4 26.4 355 10 US-09-789-482-4 26.4 360 10 US-09-789-446-2 26.4 360 10 US-09-764-413-20 26.4 360 10 US-09-764-117	No.	Score	Match	Length	DB	ID	Description
74.2 334 9 US-10-270-587-2 29.0 373 9 US-10-092-135-7 28.8 299 9 US-10-092-135-7 28.7 373 9 US-10-092-135-6 28.6 362 9 US-10-092-135-6 28.6 362 9 US-10-092-135-6 28.8 337 9 US-10-092-135-3 25.8 337 9 US-10-092-135-4 25.8 337 9 US-10-270-144-2 25.8 337 10 US-09-943-798-4 22.2 276 10 US-09-943-798-4 22.2 276 10 US-09-943-798-4 22.4 360 9 US-01-120-394-82-4 21.4 355 10 US-09-943-798-2 21.4 355 10 US-09-943-798-2 21.4 355 10 US-09-943-798-2 21.4 355 10 US-09-943-798-2 21.4 355 10 US-09-943-798-2 21.4 355 10 US-09-948-2 21.4 355 10 US-09-948-2 20.4 360 10 US-09-789-448-2 20.4 360 10 US-09-789-446-2 20.4 360 10 US-09-76-744-17	-	1231.5	74.6	334	10	US-09-765-034-2	Frank C opposition
28.0 373 9 US-10-092-135-7 28.8 299 9 US-10-270-144-4 28.7 373 9 US-10-092-135-5 28.6 362 9 US-10-092-135-5 28.6 362 9 US-10-092-135-6 28.6 362 9 US-10-092-135-4 28.6 362 9 US-10-092-135-4 28.6 362 9 US-10-092-135-4 28.6 377 9 US-10-092-135-4 25.8 377 9 US-10-023-775B-2 25.8 377 9 US-10-023-775B-2 25.8 377 10 US-09-943-798-4 26-26-26-26-26-26-26-26-26-26-26-26-26-2	7	1224.5	74.2	334	6	US-10-270-587-2	Sequence 2, Appli
28.8 299 9 US-10-270-144-4 Sequence 4, 28.7 373 9 US-10-092-135-5 Sequence 5, 28.6 362 9 US-10-092-135-5 Sequence 5, 28.6 362 9 US-10-092-135-4 Sequence 5, 28.6 362 9 US-10-092-135-4 Sequence 5, 25.8 377 9 US-10-023-775B-2 Sequence 4, 25.8 377 9 US-10-023-775B-2 Sequence 2, 25.8 377 9 US-10-270-144-2 Sequence 2, 25.8 377 10 US-09-943-798-4 Sequence 2, 22.2 276 10 US-09-943-798-4 Sequence 2, 21.4 355 10 US-09-789-486-4 Sequence 2, 20.4 360 9 US-10-120-344-20 Sequence 2, 20.4 360 9 US-10-120-344-20 Sequence 2, 20.4 360 10 US-09-837-446-2 Sequence 20, 20.4 360 10 US-09-837-446-2 Sequence 2, 20.4 360 10 US-09-764-417-2 Sequence 2, 20.4 360 10 US-09-837-446-2 Sequence 2, 20.4 360 10 US-09-764-411-2 Sequence 2, 20.4 360 10	m	479	29.0	373	6	US-10-092-135-7	, , ,
28.7 373 9 US-10-092-135-5 Sequence 5, 28.6 36.2 9 US-10-092-135-5 Sequence 5, 28.6 36.2 9 US-10-092-135-5 Sequence 5, 28.6 36.2 9 US-10-092-135-4 Sequence 6, 25.8 337 9 US-10-092-135-4 Sequence 7, 25.8 337 9 US-10-092-135-4 Sequence 2, 25.8 337 10 US-00-943-775B-2 Sequence 2, 25.6 341 9 US-10-270-144-2 Sequence 2, 27.6 10 US-09-943-798-4 Sequence 3, 27.4 355 10 US-09-789-482-4 Sequence 3, 21.4 355 10 US-09-789-486-4 Sequence 4, 20.4 360 9 US-10-120-394-20 Sequence 2, 20.4 360 10 US-09-784-413-20 Sequence 2, 20.4 360 10 US-09-784-46-2 Sequence 2, 20.4 360 10 US-09-784-46-2 Sequence 2, 20.4 360 10 US-09-784-417 Sequence 2, 20.4 360 10 US-09-784-417 Sequence 2, 20.4 360 10 US-09-784-417 Sequence 2, 20.4 360 10 US-09-784-417 Sequence 2, 20.4 360 10 US-09-784-417 Sequence 2, 20.4 360 10 US-09-784-417 Sequence 2, 20.4 360 10 US-09-784-417 Sequence 2, 20.4 360 10 US-09-784-417 Sequence 2, 20.4 360 10 US-09-784-417 Sequence 2, 20.4 360 10 US-09-784-417	4	475	28.8	299	6	US-10-270-144-4	
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28.6 362 9 US-10-092-135-3 Sequence 3, 28.6 362 9 US-10-092-135-4 Sequence 3, 25.8 37 9 US-10-022-135-4 Sequence 2, 25.8 37 9 US-10-023-758-2 Sequence 2, 25.8 37 10 US-09-943-798-4 Sequence 2, 22.2 276 10 US-09-943-798-4 Sequence 2, 22.2 276 10 US-09-943-798-4 Sequence 3, 22.4 355 10 US-09-943-798-4 Sequence 4, 20.4 360 9 US-10-120-344-20 Sequence 2, 20.4 360 9 US-10-120-344-20 Sequence 2, 20.4 360 10 US-09-837-446-2 Sequence 2, 20.4 360 10 US-09-837-446-2 Sequence 2, 20.4 360 10 US-09-837-446-2 Sequence 2, 20.4 360 10 US-09-837-446-2 Sequence 2, 20.4 360 10 US-09-837-446-2 Sequence 2, 20.4 360 10 US-09-837-446-2 Sequence 2, 20.4 360 10 US-09-837-446-2 Sequence 2, 20.4 360 10 US-09-764-417-2 Sequence 2, 20.4 360 10 US-08-764-417-2 Sequence 2, 20.4 360 10 US-08-764-417-2 Sequence 2, 20.4 360 10 U	9	474	28.7	373	6	US-10-092-135-6	, ,
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25.8 337 10 US-09-943-798-4 Sequence 2, 22.6 341 9 US-10-270-587-3 Sequence 3, 22.2 276 10 US-09-943-798-2 Sequence 3, 21.4 355 10 US-09-948-4 Sequence 2, 21.4 355 10 US-09-789-486-4 Sequence 4, 20.4 360 9 US-10-120-394-20 Sequence 20, 20.4 360 10 US-09-786-4413-20 Sequence 20, 20.4 360 10 US-09-787-446-2 Sequence 2, 20.4 360 10 US-09-787-446-2 Sequence 2, 20.4 360 10 US-09-796-744-17 Sequence 2, 20.4 3	10	426	25.8	337	σ	US-10-270-144-2	vi (
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22.2 276 10 US-09-943-798-2 Sequence 3, R 22.2 276 10 US-09-943-798-2 Sequence 2, 21.4 355 10 US-09-789-486-4 Sequence 4, 20.4 360 9 US-10-120-394-20 Sequence 20, 20.4 360 10 US-09-837-446-2 Sequence 20, 20.4 360 10 US-09-796-744-17 Sequence 20, 20.4 360 10 US-09-796-744-17 Sequence 20, 20.4 360 10 US-09-796-744-17 Sequence 21, 20.4 360 10 US-09-796-744-17 Sequence 21, 20.4 360 10 US-09-796-744-17	13	373 5	300			03 03 343-730-4	sequence 4, Appli
22.2 276 10 US-09-943-798-2 Sequence 2, 21.4 355 10 US-09-789-482-4 Sequence 4, 21.4 355 10 US-09-789-486-4 Sequence 4, 20.4 360 9 US-10-120-394-20 Sequence 4, 20.4 360 9 US-10-394-20 Sequence 2, 20.4 360 10 US-09-787-446-2 Sequence 20, 20.4 360 10 US-09-796-744-17 Sequence 2, 20.4 360 10 US-09-796-744-17 Sequence 2, 20.4 360 10 US-09-796-744-17 Sequence 2, 20.4 360 10 US-09-796-744-17	1 -		0.22	140	. س	US-10-2/0-58/-3	Sequence 3, Appli
21.4 355 10 US-09-789-486-4 Sequence 4, 21.4 355 10 US-09-789-486-4 Sequence 4, 20.4 360 9 US-10-120-344-20 Sequence 20, 20.4 360 9 US-09-784-413-20 Sequence 20, 20.4 360 10 US-09-837-446-2 Sequence 20, 20.4 360 10 US-09-837-446-2 Sequence 2, 20.4 360 10 US-09-874-417 Sequence 2, 20.4 360 10 US-09-796-744-17	?;	300	77.7	276	10	US-09-943-798-2	Sequence 2, Appli
21.4 355 10 US-09-789-486-4 Sequence 4, 20.4 360 9 US-10-120-394-20 Sequence 20, 20.4 360 10 US-09-787-446-2 Sequence 20, 20.4 360 10 US-09-796-744-17 Sequence 2, 20.4 360 10 US-09-796-744-17 Sequence 12, 20.4 360 10 US-09-796-744-17	14	353	21.4	355	10	US-09-789-482-4	
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Sequence 1, Appli Sequence 1, Appli Sequence 2, Appli Sequence 2, Appli	A 4 4 ()	Sequence 10, Appl Sequence 10, Appl Sequence 30, Appl Sequence 2, Appli Sequence 42849, A	8, 4 1, 7 1, 2, 6, 7 9, 8	Sequence 9, Appli Sequence 9, Appli Sequence 20, Appli Sequence 20, Appl Sequence 17, Appl Sequence 17, Appl
US-09-961-068-1 US-09-960-547-1 US-09-826-791-2 US-09-828-478-2	US-09-826-791-6 US-09-866-230-7 US-09-866-230-9 US-09-938-719-10	US-09-939-226-10 US-09-938-703-10 US-10-024-494-30 US-09-104-792-2 US-09-864-761-42849	US-10-024-494-8 US-09-828-478-4 US-09-848-889-12 US-09-788-133-2 US-09-828-478-6 US-09-938-719-9	US-09-938-728-9 US-09-938-703-9 US-09-823-114-9 US-09-940-240-20 US-09-920-940-20 US-09-827-937A-17 US-10-001-835-140
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328 326 326.5 326.5	326.5 326.5 326.5	326.5 325 315 314.5	309.5 309.5 309.5 309.5 309.5	309 307.5 307 303 302.5 301
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61 LSISDFAFLCTLPILIKSYANDKGTYGDVLCISNRYVLHTNLYTSILFLTFISMDRYLLM 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        121 KYPFREHFLQKKEFAILISLAVWALVTLEVLPMLTFINSVPKEEGSNCIDYASSGNPEHN 180
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1; Gaps
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 MAQNLSCENWLATEAILNKYYLSAFYAIEFIFGLLGNVTVVFGYLFCMKNWNSSNVYLFN 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ouery Match 74.6%; Score 1231.5; DB 10; Length 334; Best Local Similarity 71.8%; Pred. No. 4.1e-101; Matches 227; Conservative 42; Mismatches 46; Indels 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            46; Indels
                                                                                                                                                APPLICANT: Heditick, Joseph A.
APPLICANT: Lachowicz, Jean E.
APPLICANT: Lachowicz, Jean E.
APPLICANT: Wang, Wei
APPLICANT: Gustafson, Eric L.
TITLE OF INVENTION: Adenosine Receptor
FILE REFERENCE: CN01084
CURRENT APPLICATION NUMBER: US/09/765,034
CURRENT FILLING DATE: 2001-01-17
NUMBER OF SEQ ID NOS: 4
SOFTWARE: Patentin Ver. 2.1
ALIGNMENTS
                                                                                          Sequence 2, Application US/09765034 Patent No. US20020137887A1 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                     ORGANISM: homo sapiens
                                                   RESULT 1
US-09-765-034-2
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APPLICANT: WEI, Ming-Hui et al APPLICANT: WEI, Ming-Hui et al APPLICANT: WEI, Ming-Hui et al APPLICANT: WEI, MING-HUI et al TITLE OF INVENTION: RECEPTORS, NUCLEIC ACID MOLECULES ENCODING HUMAN GPCR TITLE OF INVENTION: PROTEINS, AND USES THEREOF FILE REFERENCE: CLO00750CON CURRENT APPLICANTON NUMBER: US/10/270,144
CURRENT PRILIG DATE: 2002-10-19
PRIOR FILLING DATE: 2000-05-18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 80 ANDKG-TYGDVLCISNRYVLHTNLYTSILFLTFISMDRYLLMKYPFREHFLQKKEFAILI 138
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        139 SLAVWALVILEVLPMLTFINS-VPKEEGSNCIDYASSGNPEHNLIYSLCITLLGFLIPLS 197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             198 VMCFFYYKMVVFLKRRSQQQATALPL-DKPQRLVVLAVVIFSILFTPYHIMRNLRIASRL 256
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                                                                                                                                                                                                                                                                                                                                                                                                                  80 ANDKG-TYGDVLCISNRYVLHTNLYTSILFLTFISMDRYLLMKYPFREHFLQKKEFAILI 138
                                                                                                                                                                                                                                                                                                                                                                                                                                            139 SLAVWALVTLEVLPMLTFINS-VPKEEGSNCIDYASSGNPEHNLIYSLCLTLLGFLIPLS 197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 172 SVLVWLIVVVAISPILFYSGTGIRKNKTVTCYDSTSDEYLRSYFIYSMCTTVAMFCIPLV 231
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                                                                                                                                                                                                                                      Ouery Match
29.0%; Score 479; DB 9; Length 373;
Best Local Similarity 37.3%; Pred. No. 1.1e-34;
Matches 107; Conservative 57; Mismatches 115; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          28.8%; Score 475; DB 9; Length 299 37.3%; Pred. No. 1.9e-34; tive 55; Mismatches 117; Indels
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    257 D-SWPQGCT-QKAIKSIYTLTRPLAFLNSAINPIFYFLMGDHYREML 301
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SOFTWARE: FastSEQ for Windows Version 4.0
PRIOR FILING DATE: 2001-03-07
PRIOR APPLICATION NUMBER: US 60/278,983
PRIOR FILING DATE: 2001-03-27
NUMBER OF SEQ ID NOS: 75
SOFTWARE: PATENTIN VERSION 3.0
SEQ ID NO 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 4, Application US/10270144 Publication No. US20030049790A1 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Matches 107; Conservative
                                                                                                                                                                                 ; ORGANISM: RATTUS NORVEGICUS US-10-092-135-7
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ORGANISM: Mus musculus
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LENGTH: 299
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US-10-270-144-4
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Publication No. US20030054374A1
GENERAL INFORMATION:
APPLICANT: Bristol-Myers Squibb Company
TITLE OF INVENTION: POLYNUCLEOTIDE ENCODING A NOVEL HUMAN G-PROTEIN COUPLED RECEPTOR,
TITLE OF INVENTION: HGPRBWY27
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         181 LIYSLCLTLLGFLIPLSVMCFFYYKMVVFLKRRSQQQATALPLDKPQRLVVLAVVIFSIL 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    121 KYPFREHFLQKKEFAILISLAVWALVTLEVLPMLTFINSVPKEEGSNCIDYASSGNPEHN 180
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 61 LSISDFAFLCTLPILIKSYANDKGTYGDVLCISNRYVLHTNLYTSILFLTFISMDRYLLM 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        65 LSVSDLAFLCTLPMLIRSYANGNWIYGDVLCISNRYVLHANLYTSILFLTFISIDRYLII 124
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  125 KYPPREHLLQKKECAILISLAMWVLVTLELLPILPLINPVITDNGTTCNDFASSGDPNYN 184
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     46; Indels
                                                                                                                                                                                                                                                                                                                                  TITLE OF INVENTION: Human G-Protein Coupled Receptor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         43; Mismatches
                                                                                                                                                                                                                                                                                                                                                                    CURRENT FILING DATE: 2002-10-16
CURRENT FILING DATE: 2002-10-16
PRIOR APPLICATION NUMBER: US 09/908,593
PRIOR PILING DATE: 2001-07-20
PRIOR PLING DATE: 1997-01-10
PRIOR PILING DATE: 1997-01-10
PRIOR PILING DATE: 1997-01-10
PRIOR FILING DATE: 1996-01-11
VINUABER OF SEQ ID NOS: 9
SOFTWARE: Patentin version 3.1
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CURRENT APPLICATION NUMBER: US/10/092,135
CURRENT FILING DATE: 2002-03-06
PRIOR APPLICATION NUMBER: US 60/273,808
                                                                                                                                                                                                                                        ; sequence 2, Application US/10270587; Publication No. US20030054487A1; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             300 MLISKFRQYFKSLTSF 315
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                                                                                                                305 MLMNQLRHNFKSLTSF 320
                                                                                         300 MLISKFRQYFKSLTSF 315
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US-10-092-135-7
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TYPE: PRT
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Matches 2
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Sequence 3, Application US/10092135
Publication No. US20030054374A1
GENERAL INFORMATION:
APPLICANT: Bristol-Myers Squibb Company
TITLE OF INVENTION: HOFREMY27
TITLE OF INVENTION: HOFREMY27
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TITLE OF INVENTION: HOFREMY27
TITLE OF INVENTION HOPER: US/10/092,135
CURRENT APPLICATION NUMBER: US 60/273,808
PRIOR APPLICATION NUMBER: US 60/273,808
PRIOR APPLICATION NUMBER: US 60/273,983
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                                                                                                                                                                                                                                                                                                                                                                             112 FNKTDWIEGDAMCKLQRFIFHVNLYGSILELTCISAHRYSGVVYPLKSLGRLKKKNAICI 171
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        52 YYLPAVYILVFIIGFLGNSVAIWMFVFHMKPWSGISVYMFNLALADFLYVLTLPALIFYY 111
                                                                                                                                                                                                                                                                                                                                                                                                                                       139 SLAVWALVILEVLPMLTFINS-VPKEEGSNCIDYASSGNPEHNLIYSLCLTLLGFLIPLS 197
                                                                                                                                                                                                                                                                                                                                                                                                                                                              198 VMCFFYYKMVVFLKRRSQQQATALPL-DKPQRLVVLAVVIFSILFTPYHIMRNLRIASRL 256
                                                                                                                                                                                                                            Gaps
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                                                                                                                                                                          28.7%; Score 474; DB 9; Length 373; 37.3%; Pred. No. 2.9e-34; Live 55; Mismatches 117; Indels
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NUMBER OF SEQ ID NOS: 75
SOFTWARE: Patentin version 3.0
SEQ ID NO 6
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SOFTWARE: PatentIn version 3.0
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                                                                                                                                                                                              Best_Local Similarity 37.3:
Matches 107; Conservative
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                                                                                     TYPE: PRT
ORGANISM: HOMO SAPIENS
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                                                                                                                            US-10-092-135-6
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Best Local S
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TITLE OF INVENTION: POLYNUCLEOFIDE ENCODING A NOVEL HUMAN G-PROTEIN COUPLED RECEPTOR,
TITLE OF INVENTION: HGPREMY27
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TITLE OF INVENTION: POLYNUCLEOTIDE ENCODING A NOVEL HUMAN G-PROTEIN COUPLED RECEPTOR,
TITLE OF INVENTION: HGPRBMY27
FILE REFERENCE: D0134.NP
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      198 VMCFFYYKMVVFLKRRSQQQATALPL-DKPQRLVVLAVVIFSILFTPYHIMRNLRIASRL 256
                                           190 VLILGCYGLIV--KALIYNDLDNSPLRRKSIYLVIIVLTVFAVSYIPFHVMKTMNLRARL 247
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     80 ANDKG-TYGDVLCISNRYVLHTNLYTSILFLTFISMDRYLLMKYPFREHFLQKKEFAILI 138
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             198 VMCFFYYKMVVFLKRRSQQQATALPL-DKPQRLVVLAVVIFSILFTPYHIMRNLRIASRL 256
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            139 SLAVWALVTLEVLPMLTFINS-VPKEEGSNCIDYASSGNPEHNLIYSLCLTLLGFLIPLS 197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           172 SVLVWLIVVVGISPILFYSGIGIRKNKTITCYDTTSDEYLRSYFIYSMCTTVAMFCVPLV 231
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             28.7%; Score 474; DB 9; Length 373; 36.6%; Pred. No. 2.9e-34;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Mismatches 116; Indels
                                                                                                                     257 D-SWPQGCT-QKAIKSIYTLTRPLAFLNSAINPIFYFLMGDHYREML 301
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CURRENT APPLICATION NUMBER: US/10/092,135
CURRENT FILING DATE: 2002-033-06
PRIOR APPLICATION NUMBER: US 60/273,808
PRIOR FILING DATE: 2001-03-07
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PRIOR APPLICATION NUMBER: US 60/278,983
PRIOR FILING DATE: 2001-03-27
NUMBER OF SEQ ID NOS: 75
SOFTWARE: Patentin version 3.0
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PRIOR APPLICATION NUMBER: US 60/273,808
PRIOR FILING DATE: 2001-03-07
PRIOR APPLICATION NUMBER: US 60/278,983
PRIOR FILING DATE: 2001-03-27
                                                                                                                                                                                                                                               ; Sequence 5, Application US/10092135
; Publication No. US20030054374A1
; GENERAL INFORMATION:
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Matches 105; Conserv
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US-10-092-135-5
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APPLICANT: WEI, Ming-Hui et al APPLICANT: WEI, Ming-Hui et al APPLICANT: WEI, Ming-Hui et al TITLE OF INVENTION: ISOLATED HUMAN G-PROTEIN COUPLED TITLE OF INVENTION: RECEPTORS, NUCLEIC ACID MOLECULES ENCODING HUMAN GPCR TITLE OF INVENTION: PROTEINS, AND USES THEREOF FILE REFERENCE: CLO00750CON CURRENT APPLICATION NUMBER: US/10/270,144
CURRENT FILING DATE: 2002-10-15
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34.4%; Pred. No. 4.5e-30;
Live 57; Mismatches 126; Indels 10;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match 25.8%; Score 426; DB 9; Length 337; Best Local Similarity 34.4%; Pred. No. 4.5e-30; Matches 101; Conservative 57; Mismatches 126; Indels 1
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               CURRENT APPLICATION NUMBER: US/10/023,775B CURRENT FILING DATE: 2001-12-18
PRIOR APPLICATION NUMBER: GB 0030854.4
PRIOR FILING DATE: 2000-12-18
PRIOR FILING DATE: 2000-12-18
PRIOR FILING DATE: 2001-00-09
PRIOR PILING DATE: 2001-00-09
PRIOR PILING DATE: 2001-00-07
PRIOR PILING DATE: 2001-06-07
PRIOR APPLICATION NUMBER: GB 0111031.1
PRIOR FILING DATE: 2001-06-07
PRIOR APPLICATION NUMBER: GB 0111031.1
PRIOR FILING DATE: 2001-06-07
PRIOR SEQ ID NOS: 4
SOFTWARE: PATENTIN VETSION 3.1
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PRIOR FILING DATE: 2000-05-18
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FILE REFERENCE: PC10959AGPR
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US-10-270-144-2
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PUBPLICANT BY 18 1510-1 Myers Squibb Company
TITLE OF INVENTION: POLYNUCLEOTIDE ENCODING A NOVEL HUMAN G-PROTEIN COUPLED RECEPTOR,
TITLE OF INVENTION: POLYNUCLEOTIDE ENCODING A NOVEL HUMAN G-PROTEIN COUPLED RECEPTOR,
TITLE OF INVENTION: HOPREMY27
TITLE OF INVENTION: 1 HOPREMY27
TITLE OF INVENTION: 2003-03-06
CURRENT PILING DATE: 2003-03-06
PRIOR APPLICATION NUMBER: US 60/273,808
PRIOR FILING DATE: 2001-03-07
PRIOR FILING DATE: 2001-03-07
PRIOR FILING DATE: 2001-03-27
NUMBER OF SEQ ID NOS: 75
SOFTWARE: PATENTIN VERSION 3.0
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           61 LSISDFAFLCTLPILIKSYANDKG-TYGDVLCISNRYVLHTNLYTSILFLTFISMDRYLL 119
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                                                                                238 SILFTPYHIMRNLRIASRLD-SWPQGCT-QKAIKSIYTLTRPLAFLNSAINPIFYFLMGD 295
                                                                                                               202 SYFVYSMCTTVFMFCIPFIVILGCYGLIVKALIYKDLDNS---PLRRKSIYLVIIVLTVF 258
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                28.6%; Score 472.5; DB 9; Length 362; 35.9%; Pred. No. 3.8e-34;
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Publication No. US20030022282A1
GENERAL INFORMATION
APPLICANT: Pfizer Ltd. (EP(GB) only)
APPLICANT: Pfizer Inc. (US., UP. EB except GB)
APPLICANT: Fidex, Mark David
ITLE OF INVENTION: No. US20030022282A1e1 Polypeptide
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Matches 110; Conservative
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Best Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   319 TFRRE 324
                                                                                                                                                                                                                                            319 TFRRRL 324
                                                                                                                                                                                             296 HYREML 301
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LENGTH: 362
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                                                                    136 ILISLAVWALVTLEVLPMLTFINSVPKEEGSNCIDYASSGNPEHNLI--YSLCLTLLGFL 193
                                                                                         194 IPLSVMCFFYYKMVVFLKRRSQQQATALPLDKPQRLVVLAVVIFSILFTPYHIMRNLRIA 253
                                                                                                                                                                   77 KSYAN-DKGTYGDVLCISNRYVLHTNLYTSILFLTFISMDRYLLMKYPFREHFLQKKEFA 135
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              17 LNKYYLSAFYAIEFIFGLLGNVTVVFGYLFCMKNWNSSNVYLFNLSISDFAFLCTLPILI 76
                                                                                                                                                                                                               254 SRLDSWPQGCT-QKAIKSIYTLTRPLAFLNSAINPIFYFLMGDHYREMLISKFR 306
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Best Local Similarity 34.4%; Pred. No. 4.5e-30;
Matches 101; Conservative 57; Mismatches 126;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TITLE OF INVENTION: Human G-Protein Coupled Receptor
                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT: Glaxo Group Limited
TITLE OF INVENTION: Polypeptide
FILE REFRERNCE: 0G1021
CURRENT APPLICATION NUMBER: US/09/943,798
CURRENT FILING DATE: 2001-08-31
NUMBER OF SEQ ID NOS: 4
SOFTWARE: FASTSEQ for Windows Version 3.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FILE REFERENCE: PF217C2
CURRENT APPLICATION NUMBER: US/10/270,587
CURRENT FILING DATE: 2002-10-16
PRIOR APPLICATION NUMBER: US 09/908,593
PRIOR FILING DATE: 2001-07-20
                                                                                                                                                                                                                                                                                                                                           Sequence 4, Application US/09943798
Patent No. US20020065215A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 3, Application US/10270587
Publication No. US20030054487A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ; ORGANISM: Homo sapiens
US-09-943-798-4
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APPLICANT: Li, Yi
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         149 RVAAVVWVLVLACQAPVLYFVTTSVRGTRITCHDTSARELFSHFVAYSSVMLGLLFAVPF 208
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                                                                                                                                                                                                                                                                                                                           48 MKNWNSSNVYLFNLSISDFAFLCTLPILIKSYAN-DKGTYGDVLCISNRYVLHTNLYTSI 106
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   107 LFLTFISMDRYLLMKYPFREHFLQKKEFAILISLAVWALVTLEVLPMLTFINSVPKEEGS 166
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      61 LFLTCFSIFRYCVIIHPMSCFSIHKTRCAVVACAVVWIISLVAVIPMTFLITSTNRTNRS 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          167 NCIDYASSGNPEHNLI--YSLCLTLLGFLIPLSVMCFFYYKMVVFLKRRSQQQATALPLD 224
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              22.6%; Score 373.5; DB 9; 33.5%; Pred. No. 1.9e-25; tive 50; Mismatches 130;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match 22.2%; Score 366; DB 10;
Best Local Similarity 33.8%; Pred. No. 6.9e-25;
Matches 89; Conservative 53; Mismatches 111;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CURRENT APPLICATION NUMBER: US/09/943,798 CURRENT FILING DATE: 2001-08-31
PRIOR APPLICATION NUMBER: US 08/781,456
PRIOR FILING DATE: 1977-01-10
PRIOR APPLICATION NUMBER: US 60/009,902
PRIOR FILING DATE: 1996-01-11
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Patent No. US20020065215A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT: Glaxo Group Limited
TITLE OF INVENTION: Polypeptide
FILE REFERENCE: QG1021
                                                                       NUMBER OF SEQ ID NOS: 9
SOFTWARE: Patentin version 3.1
SEQ ID NO 3
LENGTH: 341
                                                                                                                                                                                                                                                          94; Conservative
                                                                                                                                                                     ORGANISM: Homo sapiens
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177 KARRLTILLLLAFYVCFLPFHILRVIRIESRLLS--ISCSIENQIHEAYIVSRPLAALNT 234
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          254 SRLDSWPQGCTQKAIKSIYTLTRPLAFLNSAINPIFYFLMGDHYREMLISKFRQYFKSL 312
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  16 ILNKYYLSAFYAIEFIFGLLGNYTVVFGYLFCMKNWNSSNVYLFNLSISDFAFLCTLPIL 75
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       / Match 21.4%; Score 353; DB 10; Length 355; Local Similarity 28.1%; Pred. No. 1.3e-23; nes 84; Conservative 66; Mismatches 133; Indels 16;
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TITLE OF INVENTION: Therapeutic Methods That Target
TITLE OF INVENTION: Tractalkine or CX3CRI
FILE REFERENCE: 3238.1000-004
CURRENT APPLICATION NUMBER: US/09/789,486
CURRENT FILING DATE: 2001-02-20
PRIOR RPPLICATION NUMBER: US 60/183,568
PRIOR FILING DATE: 2000-02-18
NUMBER OF SEQ ID NOS: 12
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 4
LENGTH: 355
TYPE: PRT
                                                                                                                                                                                                                                                APPLICANT: Roch, Alisa E.
APPLICANT: Ruth, Jeffrey H.
APPLICANT: Ruth, Jeffrey H.
APPLICANT: Rothman, James B.
TITLE OF INVENTION: Therapeutic Methods That Target
TITLE OF INVENTION: Tractalkine or CX3CR1
FILE REFERENCE: 3238.1000-003
CURRENT APPLICATION NUMBER: US/09/789,482
CURRENT FILING DATE: 2001-02-20
PRIOR PRILOG DATE: 2000-02-18
NUMBER OF SEQ ID NOS: 12
SOCTWARRE: FastSEQ for Windows Version 4.0
SEQ ID NO 4
SEQ ID NO 4
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                                                                                                                                                                                       Sequence 4, Application US/09789482; Patent No. US20020054875A1; GENERAL INFORMATION:
                                           284 AINPIFYFLMGDHYREMLISKFR 306
                                                                   235 FGNLLLYVVVSDNFQQAVCSTVR 257
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TYPE: PRT
ORGANISM: Homo sapiens
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US-09-789-486-4
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                                                                                                                                                                                                                                                                            136 ILISLAVWALVTLEVLPMLTFINSVPKEEGSNCI-DYASSGNPEHNLIYSLCLTLLGFLI 194
                                                                                                                                                                                                                                                                                                               147 VIISLGVWAAAILVAAPQFMF----TKQKENECLGDYPEVLQEIWPVLRNVETNFLGFLL 202
                                                                                            Gaps
                                                                                                                              16 ILNKYYLSAFYAIEFIFGLLGNVTVVFGYLFCMKNWNSSNVYLFNLSISDFAFLCTLPIL 75
                                                                                                                                                       254 SRLDSWPQGCTQKAIKSIYTLTRPLAFLNSAINPIFYFLMGDHYREMLISKFRQYFKSL 312
                                                                                                                                                                                                                                                                                                                                                                                                                                                    16;
                                                         Length 355;
                                                                                            Indels
                                                                                            66; Mismatches 133;
                                                     21.4%; Score 353; DB 10; 28.1%; Pred. No. 1.3e-23;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Search completed: April 2, 2003, 15:19:49
                                                                                                84; Conservative
; ORGANISM: Homo sapiens
US-09-789-486-4
                                                             Query Match
Best Local Similarity
                                                                                                  Matches
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GenCore version 5.1.3
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OM protein - protein search, using sw model

April 2, 2003, 15:12:31; Search time 26 Seconds Run on:

(without alignments) 1172.100 Million cell updates/sec

US-09-891-138A-2 1650 Perfect score:

1 MAQNISCENWLATEAILNKY.....REMLISKFRQYFKSLTSFRT 317 Sequence:

BLOSUM62 Gapop 10.0 , Gapext 0.5 Scoring table:

283224 seqs, 96134422 residues Searched:

Total number of hits satisfying chosen parameters:

Minimum DB seq length: 0 Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0% Maximum Match 100% Listing first 45 summaries

Database :

pir1:\* pir3:\* pir4:\* Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

	Description		P2Y receptor - bov	an	G protein-compled	-	Ornhan G protein-o	G professional	chemokine (C-C) re	Q.		G protein-compled	probable G protein	DAYA recentor - his	chemokine (7-7) ro		3	interlenking room	C protoin-complet	brain-coupled	interleukin-9 room	G protein-county	somatostatin recen	Somatostatin recen	heptahelical poys-	٢	interleukin-8 rece			macrophage inflamm	somatostatin recep
SUMMARIES	ID		JC4162	JC4737	533733	A47556	JC4304	868679	A57160	I55450	A54946	150241	158186	JC4800	A45177	JC4587	JN0605	A48921	A55733	A47249	J01231	JC5067	JC2083	B41795	JC5549	T09508	A53611	A53752	JC4629	149339	D41795
	ength DB	:																		384 2										355 2	69
đ	Query Match Length		7.97	28	58											19.	19.	19	19.	5	19.1	19.1	19.0	19.0	19.0	19.0	18.9	18.8	18.8	18.7	18.7
	Score		7/5	474	472.5	373.5	353	352	336.5	336	335.5	333	332.5	332	328	326.5	325.5	318.5	317.5	316.5	315.5	315	314	314	314	313	312.5	311	309.5	309	308
	Result No.		4 C	.7	m	4	Ω.	9	7	ω	6	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	56	27	28	29

139 SLAVWALVILEVLPMLIFINS-VPKEEGSNCIDYASSGNPEHNLIYSLCLILLGFLIPLS 197

a δ qq δ ρp δy Dp

198 VMCFFYYKMVVFLKRRSQQQATALPL-DKPQRLVVLAVVIFSILFTPYHIMRNLRIASRL 256

somatostatin recen	MTP-1 alpha recent	G protein-compled	somatostatin recen	Somatostatin recep	G protein-coupled	interleukin-8 rece	SOMBATOSTATIO 1606	SOMETOS CALLET 1 COOP	hradykinin recep	G protein-coupled	chemokine (7-7) re	bradykinin recento	G protein recepto	G protein-coupled	somatostatin recep
A45291	149340	A39714	A39297	529248	B45680	A39445	A41795	C41795	OORTB2	JC5068	G02436	A53858	T09353	169202	157955
2	7	7	7	7	7	~	7	7	-	7	7	7	~	2	7
369	356	362	391	346	361	350	391	391	366	369	355	353	354	387	363
18.6	18.5	18.5	18.5	18.5	18.5	18.4	18.4	18.4	18.3	18.3	18.2	18.2	18.1	18.0	17.9
307.5	308	306	306	305	304.5	303	303	303	302	301.5	301	299.5	298	297	295.5
30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45

## ALIGNMENTS

P2Y receptor - bovine C;Species: Bos primigenius taurus (cattle)	
C;Date: 12-Oct-1995 #sequence_revision 10-Nov-1995	P27 receptor - bovine C;Species: Bos primigenius taurus (cattle) C;Date: 12-Oct-1995 #sequence_revision 10-Nov-1995 #text_change 24-Sen-1999
C; Accession: JC4162	
K; Henderson, D.J.; Elliot, D.G.; Smith, G.M.; Webb, Biochem. Biophys. Res. Commun. 212. 648-656. 1995	.M.; Webb, T.E.; Dainty, I.A. 56. 1995
A, Title: Cloning and characterisation of a bovine P	a bovine P2Y receptor.
A; Reference number: JC4162; MUID:95352058; PMID:7626079 A; Accession: JC4162	; PMID:7626079
A; Molecule type: mRNA A: Residues: 1-373 < HFN>	
A; Cross-references: EMBL: X87628; NID: 91032484; PIDN: CAA60958.1; PID: 91032485	2484; PIDN:CAA60958.1; PID:g1032485
A;Experimental source: aortic endothelial cell C:Genetics:	cell
A; Gene: bovp2y	
C; Superfamily: ATP receptor P2u	
C; Keywords: glycoprotein; phosphoprotein; receptor; transmembrane protein F; 52-77/Domain: transmembrane #status predicted < mw1.	receptor; transmembrane protein
F;88-111/Domain: transmembrane #status predicted <tm< td=""><td>edicted <tm2></tm2></td></tm<>	edicted <tm2></tm2>
F;124-130/Domain: transmembrane #status predicted <1 F;171-191/Domain: transmembrane #status predicted <7	redicted <tm3></tm3>
F;214-237/Domain: transmembrane #status predicted <	redicted <tm5></tm5>
F;261-282/Domain: transmembrane #status predicted <t< td=""><td>redicted <tm6></tm6></td></t<>	redicted <tm6></tm6>
F:300-320/LOMBAIN: LiansMembrane #Status predicted <tm></tm> F:11,27,113,197/Binding site: carbohydrate (Asn) (covalent) #status predicted F:286/Binding site: phosphafe (Ser) (covalent) (the protein binse as a material constant of the protein bins	redicted <tm></tm> ( Asn) (covalent) #status predicted
To (constant) (sol based from the constant of	ient) (27 protein nimase n.) #status predicte
Query Match 28.7%; Score 474; DB 2; Best Local Similarity 36.6%; pred No. 4.25-32;	74; DB 2; Length 373;
Matches 105; Conservative 58; Mismatches 116; Indels	atches 116; Indels 8; Gaps 6;
QY 20 YYLSAFYAIEFIFGLLGNVTVVFGYLFCMKNWNSSNVYLFNL	WNSSNVYLENLSISDFAFLCTLPILIKSY 79
Db 52 YYLPAVYILVFIIGFLGNSVAIWMFVFHMKFWSGISVXMFNLALADFLYVLTLPALIFYY 111	: :  :   ::   ::
QY 80 ANDKG-TYGDVLCISNRYVLHTNLYTSILFLTFISMDRYLLM	TFISMDRYLLMKYPFREHFLQKKEFAILI 138
Db 112 FNKTDWIFGDAMCKLQRFIFHVNLYGSILFLTCISAHRYSGVVYPLKSLGRLKKKNAVYI 171	;    ;    ;    ;    ;    ;

a

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Gprotein-coupled receptor - chicken
C;Species: Gallus gallus (chicken)
C;Species: Gallus gallus (chicken)
C;Species: Gallus gallus (chicken)
C;Dates: O6-Jan-1995 #sequence_revision 06-Jan-1995 #text_change 24-Sep-1999
C;Accession: S33733
R;Webb, T.E.; Simon, J.; Krishek, B.J.; Bateson, A.N.; Smart, T.G.; King, B.F.; Burns FBBS Lett. 324, 219-225, 1993
A;Title: Cloning and functional expression of a brain G-protein-coupled ATP receptor. A;Reference number: S33733; MUID:93285340; PMID:8508924
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    R;Lustig, K.D.; Shiau, A.K.; Brake, A.J.; Julius, D. Proc. Natl. Acad. Sci. U.S.A. 90, 5113-5117, 1993
A;Title: Expression cloning of an ATP receptor from mouse neuroblastoma cells. A;Reference number: A47556; MUID:93281707; PMID:7685114
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 C;Species: Mus musculus (house mouse)
C;Date: 13-Jan-1995 #sequence_revision 13-Jan-1995 #text_change 24-Sep-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            142 VVHPLKSLGRLKKKNAVYSSLVWALVVAVIAPILFYSGTGVRRNKTITCYDTTADEYLR 201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   179 HNLIYSLCLTLLGFLIPLSVMCFFYYKMVVFLKRRSQQQATALPL-DKPQRLVVLAVVIF 237
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    202 SYFVYSMCTTVFMFCIPFIVILGCYGLIVKALIYKDLDNS---PLRRKSIYLVIIVLTVF 258
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           238 SILFTPYHIMRNLRIASRLD-SWPQGCT-QKAIKSIYTLTRPLAFLNSAINPIFYFLMGD 295
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       120 MKYPFREHFLQKKEFAILISLAVWALVTLEVLPMLTFINS-VPKEEGSNCIDYASSGNPE 178
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               A;Cross-references: EMBL:X73268; NID:9395084; PIDN:CAA51716.1; PID:9395085
C;Superfamily: ATP receptor P2u
C;Keywords: G protein-coupled receptor; transmembrane protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     61 LSISDFAFLCTLPILIKSYANDKG-TYGDVLCISNRYVLHTNLYTSILFLTFISMDRYLL 119
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               10 WLA----TEAILNK----YYLSAFYAIEFIFGLLGNVTVVFGYLFCMKNWNSSNVYLFN 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       22 WAAGNATTKCSLTKTGFQFYYLPTVXILVFITGFLGNSVAIMMFVFHWRPWSGISVYMFN 81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A;Cross-references: GB:L14751; NID:g309457; PIDN:AAA39871.1; PID:g309458
C;Superfamily: ATP receptor P2u
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Best Local Similarity 35.9%; Pred. No. 5.4e-32;
Matches 110; Conservative 58; Mismatches 121; Indels 17
257 D-SWPQGCT-QKAIKSIYTLTRPLAFLNSAINPIFYFLMGDHYREML 301
                                                        289 DFQTPAMCAFNDRVYATYQVTRGLASLNSCVDPILYFLAGDTFRRRL 335
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       22.6%;
33.5%;
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Best Local Similarity
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A; Molecule type: mRNA
A; Residues: 1-373 < LUS>
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A; Molecule type: mRNA
A; Residues: 1-362 <WEB>
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     A; Status: preliminary
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F;52-77/Domain: transmembrane #status predicted <TM1>
F;88-111/Domain: transmembrane #status predicted <TM2>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A Molecule type: DNA

**Residues: 1-373 < CAN>

**Residues: 1-373 < CAN>

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**A; Residues: 1-373 < CAN

**A; Residues: 1-375 < CAN

**B; A; Residues: 1-375 < CAN

**A; Residue
                                                                                                                                                                                                      N.Alternate names: P271 purinergic receptor; P2Y1 purinoceptor
C:Species: Homo sapiens (man)
C:Date: 10-May-1996 #sequence_revision 16-Aug-1996 #text_change 17-Nov-2000
C:Accession: JC4737; JC4615; S54253
R:Janssens, R.; Communi, D.; Pirotton, S.; Samson, M.; Parmentier, M.; Boeynaems, J.M.
Biochem. Biophys. Res. Commun. 221, 588-593, 1996
A:Title: Cloning and tissue distribution of the human P2X1 receptor.
A;Reference number: JC4737; MUID:96205320; PMID:8630005
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         9
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             VMCFFYYKMVVFLKRRSQQQATALPL-DKPQRLVVLAVVIFSILFTPYHIMRNLRIASRL 256
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A; Molecule type: mRNA
A; Residues: 1-373 <AYY>
A; Cross-references: GB:U42029; NID:g1147730; PIDN:AAA97872.1; PID:g1147731
A; Cross-references: GB:U42029; NID:g1147730; PIDN:AAA97872.1; PID:g1147731
A; Experimental source: erythro leukemia cells
R; Leon, C.; Vial, C.; Cazenave, J.; Gachet, C.
R; Leon, C.; Vial, C.; Cazenave, J.; Gachet, C.
Bobnitted to the EMBL Data Library, May 1995
A; Description: Cloning of a human putative P2Y receptor.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   80 ANDKG-TYGDVLCISNRYVLHTNLYTSILFLTFISMDRYLLMKYPFREHFLQKKEFAILI 138
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               20 YYLSAFYAIEFIFGLLGNVTVVFGYLFCMKNWNSSNVYLFNLSISDFAFLCTLPILIKSY 79
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 474; DB 2; Length 373;
Pred. No. 4.2e-32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              55; Mismatches 117; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   F;124-152/Domain: transmembrane *status predicted <TM3>F;171-191/Domain: transmembrane *status predicted <TM4>F;217-237/Domain: transmembrane *status predicted <TM5-F;261-282/Domain: transmembrane *status predicted <TM5-F;261-282/Domain: transmembrane *status predicted <TM6-F;305-328/Domain: transmembrane *status predicted <TM7>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             A;Gene: p2x1; GDB:P2RY1
A;Cross-references: GDB:677125; OMIM:601167
A;Map position: 3pter 3qter
C;Superfamily: ATP receptor P2u
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local Similarity 37.3%;
Matches 107; Conservative 5:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A; Accession: S54253
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A; Accession: JC4615
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           198
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C; Species: Homo sapiens (man)
C; Date: 15-Feb-1997 #sequence_revision 13-Mar-1997 #text_change 20-Jun-2000
C; Date: 15-Feb-1997 #sequence_revision 13-Mar-1997 #text_change 20-Jun-2000
C; Accession: 868679
R; Stam, N.J.; Klomp, J; van de Heuvel, M.; Olijve, W.
FEBS Lett. 384, 260-264, 1996
A; Title: Molecular cloning and characterization of a novel orphan receptor (P(2P)) ex A; Accession: 868679
A; Mulb: 96197801; PMID: 96197801; PMID: 8617367
A; Accession: 868679
A; Status: preliminary
A; Molecule type: DNA
A; Mesidues: 1.365 < STA>
A; Cross-references: EMBL: X96597; NID: 91296631; PIDN: CAA65415.1; PID: 91296632
C; Superfamily: ATP receptor
C; Keywords: G protein-coupled receptor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          R; Power, C.A.; Meyer, A.; Nemeth, K.; Bacon, K.B.; Hoogewerf, A.J.; Proudfoot, A.E.I. J. Biol. Chem. 270, 19495-19500, 1995
A; Title: Molecular cloning and functional expression of a novel CC chemokine receptor A; Reference number: A57160; MUID:95370289; PMID:7642634
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               A;Map position: 3p21-3p21
C;Superfamily: vertebrate rhodopsin
C;Keywords: G protein-coupled receptor; glycoprotein; phosphoprotein; transmembrane p
F;40-65/Domain: transmembrane #status predicted <TMl>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            C.Species: Homo sapiens (man)
C.Date: 10-Nov-1995 #sequence_revision 10-Nov-1995 #text_change 21-Jul-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                81 NDKGTYGDVLCISNRYVLHTNLYTSILFLTFISMDRYLLMKYPFREHFLQKKEFAILISL 140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      158 AVWLVVAGCLVPNLFFVTTSNKGTTVLCHDTTRPEEFDHYVHFSSAVMGLLFGVPCLVTL 217
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 201 FFYYKMVVFLKRR-----SQQQATALPLDKPQRLVVLAVVIFSILFTPYHIMRNLRIA 253
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           31.18; Pred. No. 6.2e-22;
tive 59; Mismatches 122; Indels 18; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    141 AVWALVILEVLPMLTFINSVPKEEGSNCIDYASSGNPEHNLIYSLCLTLLGFLIPLSVMC 200
                                                                                             254 SRLDSWPQGCTQKAIKSIYTLTRPLAFLNSAINPIFYFLMGDHYREMLISKFRQYFKSL 312
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      22 LSAFYAIEFIFGLLGNVTVVFGYLFCMKNWNSSNVYLFNLSISDFAFLCTLPILIKSY-A 80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       38 LPVSYAVVFVLGLGLNAPTLWLFIFRLRPWDATATYMFHLALSDTLYVLSLPTLIYYYAA 97
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A;Residues: 1-360 <POW>
A;Cross-references: GB:X85740; NID:g1370103; PIDN:CAA59743.1; PID:g971452
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         21.3%; Score 352; DB 2; Length 365; 31.1%; Pred. No. 6.2e-22;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      271 ARL--LEADCRVLNIVNVYKVTRPLASANSCLDPVLYLLTGDKYRRQL 317
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  254 SRLDSWPQGC-TQKAIKSIYTLTRPLAFLNSAINPIFYFLMGDHYREML 301
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                                                                                                                                                                                                                                                                                         protein-coupled receptor - human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    chemokine (C-C) receptor 4 - human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    90; Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Viginal by Protein coupled receptor - human

N. Alternate names: V28 protein

C; Species: Homo sapiens (man)

C; Stocksion: JC4304

R; Raport, C.J.; Schweickart, V.L.; Eddy Jr., R.L.; Shows, T.B.; Gray, P.W.

R; Raport, C.J.; Schweickart, V.L.; Eddy Jr., R.L.; Shows, T.B.; Gray, P.W.

A; Tille: The orphan G-protein-coupled receptor-encoding gene V28 is closely related to g

A; Reference number: JC4304

A; Reference number: JC4304

A; Molecule type: mRNA

A; Residues: 1.35 cRAP

A; Molecule type: mRNA

A; Residues: 1.35 cRAP

A; Cross-references: GB:U20350; NID:9665580; PIDN:AAA91783.1; PID:9665581

C; Comment: This protein is a cell-surface receptor which recognizes extracellular signal

C; Comment: This protein is a cell-surface receptor which recognizes extracellular signal

C; Comment: This protein is a key regulator of many immune and homeostatic responses, and

A; Map Position: 3pter-p21

C; Superfamily: vertebrate rhodopsin

C; Superfamily: vertebrate rhodopsin

C; Reywords: G protein-coupled receptor; lymphokine; transmembrane #status predicted <TM3>

F; 104-125/Domain: transmembrane #status predicted <TM3>

F; 104-125/Domain: transmembrane #status predicted <TM3>

F; 104-125/Domain: transmembrane #status predicted <TM3>

F; 197-217/Domain: transmembrane #status predicted <TM3>

F; 239-254/Domain: transmembrane #status predicted <TM3>

F; 23
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9
                                                                                                                                                                                                  SYA-NDKGTYGDVLCISNRYVLHTNLYTSILFLTFISMDRYLLMKYPFREHFLQKKEFAI 136
                                                                                                                                                                                                                                  137 LISLAVWALVTLEVLPMLTFINSVPKEEGSNCIDYASSGNPEHNLIYSLCITLLGFLIPL 196
                                                                                                                                                                                                                                                                                                                                                                                              152 RVAAVVWVLVLACQAPVLYFVTTSVRGTRITCHDTSARELFSHFVAYSSVMLGLLFAVPF 211
                                                                                                                                                                                                                                                                                                                                                                                                                                                             197 SVMCFFYYKMVVFLKRRSQQQATALPLDKPQ--RLVVLAVVIFSILFTPYHIMRNLRIAS 254
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     212 SVILVCYVLMARRILKPAYGTTGGLPRAKRKSVRTIALVLAVFALCFLPFHVTRTLYYSF 271
                                                              19 KY-YLSAFYAIEFIFGLLGNVTVVFGYLFCMKNWNSSNVYLFNLSISDFAFLCTLPILIK 77
                                                                                                                             32 KYVLLPVSYGVYCVLGLCLNVVALYIFLCRLKTWNASTTYMFHLAVSDSLYAASLPLLVY 91
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        76 IKSYANDKGTYGDVLCISNRYVLHTNLYTSILFLTFISMDRYLLMKYPFREHFLQKKEFA 135
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   88 THYLINEKGLH-NAMCKFTTAFFFIGFFGSIFFITVISIDRYLAIVLAANSMNNRTVQHG 146
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         136 ILISLAVWALVTLEVLPMLTFINSVPKEEGSNCI-DYASSGNPEHNLIYSLCLTLLGFLI 194
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       147 VTISLGVWAAAILVAAPQFMF----TKQKENECLGDYPEVLQEIWPVLRNVETNFLGFLL 202
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PLSVMCFFYYKMY-VFLKRRSQQQATALPLDKPQRLVVLAVVIFSILFTPYHIMRNLRIA 253
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       16 ILNKYYLSAFYAIEFIFGLLGNVTVVFGYLFCMKNWNSSNVYLFNLSISDFAFLCTLPIL 75
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 353; DB 2; Length 355; Pred. No. 5e-22;
94; Conservative 50; Mismatches 130; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Mismatches 133; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       272 R--SLDLSCHTLNAINNAYKITRPLASANSCLDPVLYFLAG 310
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 255 RLDSWPQGC-TQKAIKSIYTLTRPLAFLNSAINPIFYFLMG 294
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         orphan G protein-coupled receptor - human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                99
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28.1%;
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A; Molecule type: mFNA
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                                                                                              F;131.7) **Domain: transmembrane #status predicted <TM5>
F;243-264/Domain: transmembrane #status predicted <TM6>
F;243-264/Domain: transmembrane #status predicted <TM6>
F;243-264/Domain: transmembrane #status predicted <TM7>
F;291.308/Domain: transmembrane #status predicted <TM7>
F;29-276.110-187/Disulfide bonds: #status predicted F;72,350/Binding site: phosphate (Ser) (covalent) (by casein kinase II) #status predicted F;745/Binding site: phosphate (Ser) (covalent) #status predicted F;183.194/Binding site: carbohydrate (Asn) (covalent) #status predicted F;321/Binding site: phosphate (Thr) (covalent) #status predicted
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G protein-coupled P2 receptor - rat
C; Species: Rattus norvegicus (Norway rat)
C; Species: Rattus norvegicus (Norway rat)
C; Daccession: 155450
R; Chang, K.; Hanaoka, K.; Kumada, M.; Takuwa, Y.
J. Biol. Chem. 270, 25152-26158, 1958
A; Title: Molecular cloning and functional analysis of a novel P2 nucleotide receptor.
A; Reference number: 155450; MUID: 96064682; PMID: 7592819
A; Rote sion: 155450
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      72 SMTDVYLLNLAISDLLFVFSLPFW-GYYAADQWVFGLGLCKMISWMYLVGFYSGIFFVML 130
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | : :: || : :| | :| | | | | | : | :: |
191 YSLNSTTWKVLSSLEINILGLVIPLGIM-LFCYSMII----RTLQHCKNEKKNKAVKMIF 245
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    53 S-SNVYLFNLSISDFAFLCTLPILIKSYANDKGTYGDVLCISNRYVLHTNLYTSILFLTF 111
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          112 ISMDRYLLMKYPFREHFLQKKEFAILISLAVWALVTLEVLPMLTFINSVPKEEGSNCIDY 171
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                LSAFYAIEFIFGLLGNVTVVFGYLFCMKNWNSSNVYLFNLSISDFAFLCTLPILIKSYA- 80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                29 LPPVYSVVLVVGLPLNVCVIAQICASRRTLTRSAVYTLNLALADLLYACSLPLLIYNYAR 88
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            10; Gaps
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          13 ESIYSNYYLYESIPKPCTKEGIKAFGELFLPPLYSLVFVFGLLGNSVVVL-VLFKYKRLR 71
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       172 ASSGNPEHNLIYSLCLTLLGFLIPLSVMCFFYYKMVVFLKRRSQQQATALPLDKFQRLVV
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ; Fred. No. 1.2e-20;
60; Mismatches 132; Indels 31;
                                                                                                                                                                                                                                                                                                                                                                                                                                 DB 2; Length 360;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 336; DB 2; Length 328; Pred. No. 1.2e-20;
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F;76-97/Domain: transmembrane #status predicted
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hes 85; Conservative
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C; Accession: A54946
R; Parr, C.E.; Sullivan, D.M.; Paradiso, A.M.; Lazarowski, E.R.; Burch, L.H.; Olsen, J. Proc. Natl. Acad. Sci. U.S.A. 91, 3275-3279, 1994
A; Title: Cloning and expression of a human P-2U nucleotide receptor, a target for cys A; Accession: A54946; MUID:94211846; PMID:8159738
A; Accession: A54946
A; Status: preliminary
A; Molecule type: mRNA; protein
A; Residues: 1-375 cPAR>
A; Cross-references: GB:007225
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N.Alternate names: purinoceptor 6H1
C.Species: Gallus gallus (chicken)
C.Species: Gallus gallus (chicken)
C.Date: 13-5ep-1996 #sequence_revision 13-Sep-1996 #text_change 02-Jun-2000
C.Accession: 150241; JC4618
R.Kaplan, M.H.; Smith, D.I.; Sundick, R.S.
J. Immunol. 151, 628-636, 1993
A.Fitle: Identification of a G protein coupled receptor induced in activated T cells.
A.Reference number: 150241; MUID:93329058; PMID:8393036
A.Accession: 150241
A.Status: preliminary; translated from GB/EMBL/DDBJ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  C;Species: Homo sapiens (man)
C;Date: 11-Nov-1994 #sequence_revision 11-Nov-1994 #text_change 17-Mar-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        211 AVILVCYVLMARRLLKPAYGTSGGLPRAKRKSVRTIAVVLAVFALCELPFHVTRTLYYSF 270
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         78 SYA-NDKGTYGDVLCISNRYVLHTNLYTSILFLTFISMDRYLLMKYPFREHFLQKKEFAI 136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       137 LISLAVWALVTLEVLPMLTFINSVPKEEGSNCIDYASSGNPEHNLIYSLCLTLLGFLIPL 196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 152 RVAGAVWVLVLACQAPVLYFVTTSARGP-LTCHDTSAPELFSRFVAYSSVMLGLLFAVPF 210
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           209 LACYCRMA---RRICRODGPAGPVAQERRSKAARMAVVVAAVFVISFLPFHITKTAYLAV 265
149 GVVWLVVTAQCLPTAVFAATGIQRNRTVCYDLSPPILSTRYLPYGMALTVIGFLLPFTAL 208
                                                                200 CFFYYKMVVFLKRRSQQQATALPL----DKPQRLVVLAVVIFSILFTPYHIMRNLRIAS 254
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        32 KYVLLPVSYGVVCVLGLCLNAVGLYIFLCRLKTWNASTTYMFHLAVSDALYAASLPLLVY
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93; Conservative 52; Mismatches 127; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        C, Superfamily: ATP receptor rau
C, Reywords: G protein-coupled receptor; transmembrane protein
                                                                                                                                                                                                  255 RLDSWPQGCTQKAIKSIYTLTRPLAFLNSAINPIFYFLMGDHYR 298
                                                                                                                                                                                                                                                                266 RSTPGVSCPVLETFAAAYKGTRPFASANSVLDPILFYFTQQKFR 309
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 255 RLDSWPQGC-TQKAIKSIYTLTRPLAFLNSAINPIFYFLMG 294
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DB 2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   20.3%; Score 335.5; DB 2
33.1%; Pred. No. 1.5e-20;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A;Cross-references: GDB:362713; OMIM:600041
A;Map position: 11q13.5-11q14.1
C;Superfamily: ATP receptor P2u
                                                                                                                                                                                                                                                                                                                                                                                                                                          p-2U nucleotide receptor - human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              A,Gene: GDB:P2RY2; HP2U; P2U
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Best Local Similarity
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C;Species: Homo sapiens (man)
C;Date: 15-Oct-1995 #sequence_revision 16-Aug-1996 #text_change 17-Nov-2000
C;Date: 15-Oct-1995 #sequence_revision 16-Aug-1996 #text_change 17-Nov-2000
C;Accession: JC4800; G0254
R;Communi, D.; Parmentier, M.; Boeynaems, J.M.
Biochem. Biophys. Res. Commun. 222, 303-308, 1996
A;Title: Cloning, functional expression and tissue distribution of the human P2%6 rec
A;Reference number: JC4800; MUID:96222498; PMID:8670200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              9
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A;Cross-references: EMBL:U52464; NID:91407632; PIDN:AAB03572.1; PID:91407633
                                                                                                                                                                                                                                                 81 NDKGTYGDVLCISNRYVLHTNLYTSILFLTFISMDRYLLMKYPFREHFLQKKEFAILISL 140
                                                                                                                                                                                                                                                                                                                              94 SHEGLH-NAMCKLTTAFFFIGFFGGIFFITVISIDRYLAIVLAANSMNNRTVQHGVTISL 152
                                                                                                                                                                                                                                                                                                                                                                                                       141 AVWALVTLEVLPMLTFINSVPKEEGSNCI-DYASSGNPEHNLIYSLCLTLLGFLIPLSVM 199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               153 GVWAAAILVASPQFMF----TKRKDNECLGDYPEVLQEIWPVLRNSEVNILGFVLPLLIM 208
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            200 CFFYYKMV-VFLKRRSQQQATALPLDKPQRLVVLAVVIFSILFTPYHIMRNLRIASRLDS 258
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                209 SFCYFRIVRILFSCKNRKKARAI-----RLILLVVVVFFLFWTPYNIVIFLETLKFYNF 262
                                                                                                21 YLSAFYAIEFIFGLLGNVTVVFGYLFCMKNWNSSNVYLFNLSISDFAFLCTLPILIKSYA 80
                                                                                                                                                 81 NDKGTYGDVLCISNRYVLHTNLYTSILFLTFISMDRYLLMKYPFRE-HFLQKKEFAILIS 139
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             140 LAVWALVTLEVLPMLTFINSVPKEEGSNCIDYASSGNPEHNLIYSLCLTLLGFLIPLSVM 199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          48; Mismatches 136; Indels 20; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               22 LSAFYAIEFIFGLLGNVTVVFGYLFCMKNWNSSNVYLFNLSISDFAFLCTLPILIKSYA- 80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            29 LPPVYSAVLAAGLPLNICVITQICTSRRALTRTAVYTLNLALADLLYACSLPLLIYNYAQ 88
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           A, Experimental source: placenta R; Hammet, F.; Southey, M.C.; Somers, G.R.; Hutchins, A.M.; Venter, D.J. submitted to the EMBL Data Library, March 1996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              .......
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              :| :: :: ::| :|| :|| | |: || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 259 WPQGCTQKAIKSIYTLTRPLAFLNSAINPIFYFLMGDHYREMLISKFRQYFKSL 312
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  C, Keywords: glycoprotein, placenta; receptor; transmembrane protein F;26-52/Domain: transmembrane #status predicted <TWM1> F;63-86/Domain: transmembrane #status predicted <TWM2> F;104-122/Domain: transmembrane #status predicted <TMM3> F;143-167/Domain: transmembrane #status predicted <TMM4> F;193-216/Domain: transmembrane #status predicted <TMM4>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length 328;
                                    Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        F;241-264/Domain: transmembrane #status predicted <TMM6>F;283-305/Domain: transmembrane #status predicted <TMM7>
                                    125;
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                                    Mismatches
                        :99
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           A; Cross-references: EMBL: X97058
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Superfamily: ATP receptor P2u
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                                Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A; Reference number: H01373
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local Similarity
...ac 90; Conserva'
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               P2Y6 receptor - human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A; Molecule type: mRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              A; Accession: JC4800
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                        82;
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C;Superfamily
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                            Matches
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C;Species: Rattus norvegicus (Norway rat)
C;Date: 26-Jul-1996 #sequence_revision 26-Jul-1996 #text_change 21-Jul-2000
C;Accession: 158186
R;Harrison, J.K.; Barber, C.M.; Lynch, K.R.
Neurosci. Lett. 169, 85-89, 1994
A;Title: CDNA cloning of a G-protein-coupled receptor expressed in rat spinal cord and la A;Reference number: 158186; MUID:94323113; PMID:8047298
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        9
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A;Cross-references: EMBL:U04808; NID:g2558635; PIDN:AAB87093.1; PID:g439861 C;Superfamily: vertebrate rhodopsin C;Keywords: G protein-coupled receptor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SYANDKGTYGDVLCISNRYVLHTNLYTSILFLTFISMDRYLLMKYPFREHFLQKKEFAIL 137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  133 VCVAVWITVL------AGSTPASFFQSTNRQNNTEQRTCFENFPESTWKT 176
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    187 -----LTLLGFLIP--LSVMCFFYKMVV-FLKRRSQQQATALPLDKPQRLVVLAVV 235
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        177 YLSRIVIFIEIVGFFIPLILNVTC---STWVLRTLNKPLTLSRNKLSKKKVLKMIFVHLV 233
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         236 IFSILFTPYHIMRNLRIASRLDSWPQGCTQKAIKSIYTLTRPLAFLNSAINPIFYFLMGD 295
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 234 IFCFCFVPYNITLLILYSLMRTQTWINCSVVTAVRTMYPVTLCIAVSNCCFDPIVYYFTSD 293
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           28.9%; Pred. No. 2e-zu;
tive 52; Mismatches 123; Indels 42; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            KYYL-SAFYAIEFIFGLLGNVTVVFGYLFCMKNWNSSNVYLFNLSISDFAFLCTLPILIK 77
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 13 KYTLYGCVFSMVFVLGLIANCVAIYIFTFTLKVRNETTTYMLNLAISDLLFVFTLPFRIY 72
                            A.Cross-references: GB:L06109; NID:9304383; PIDN:AAB06587.1; PID:9304384 R; Webb, T.E.; Kaplan, M.G.; Barnard, E.A. Blochem. Biophys. Res. Commun. 219, 105-110, 1996 A; Title: Identification of 6H1 as a P2Y purinoceptor: P2Y5. A; Reference number: JC4618; MuID:96190677; PMID:8619790
                                                                                                                                                                                                                                                                                                  A;Residues: 1-308 <WEB>
A;Cross.references: GB:L06109; NID:g304383; PIDN:AAB06587.1; PID:g304384
A;Experimental source: T-cells
C;Comment: This receptor plays a role in T-cell activation.
C;Gemetics:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 332.5; DB 2; Length 354; Pred. No. 2.6e-20;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A;Gene: p2x5
C;Superfamily: ATP receptor P2u
C;Keywords: G protein-coupled receptor; transmembrane protein
F;15-40/Domain: transmembrane #status predicted <TMX>
F;51-74/Domain: transmembrane #status predicted <TMX>
F;89-109/Domain: transmembrane #status predicted <TMX>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  138 ISLAVWALVTLEVLPMLTFINSVPKEEGSNCIDYASSGNPEHNLIYSLC-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 F;89-109/Domain: transmembrane #status predicted <TM3>F;133-153/Domain: transmembrane #status predicted <TM4>F:177-201/Domain: transmembrane #status predicted <TM5>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              F;227-248/Domain: transmembrane #status predicted <TM6>F;269-292/Domain: transmembrane #status predicted <TM7>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               A;Status: preliminary; translated from GB/EMBL/DDBJ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               20.2%; Score 333;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local Similarity 28.9%;
                                                                                                                                                                                                                                                              A; Molecule type: mRNA
A; Residues: 1-308 <WEB>
A; Residues: 1-308 <KAP>
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A; Molecule type: mRNA
A; Residues: 1-360 <-HOO>
A; Residues: 1-360 <-HOO>
A; Coss-references: EMBL:X90862; NID:g1167851; PIDN:CAA62372.1; PID:g1167852
A; Cross-references: EMBL:X90862; NID:g1167851; PIDN:CAA62372.1; PID:g1167852
A; Experimental source: thymus
C; Genetics:
A; G
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   C;Species: Mus musculus (house mouse)
C;Date: 08-Mar-1996 #sequence_revision 19-Apr-1996 #text_change 20-Jun-2000
C;Date: 08-Mar-1996 #sequence_revision 19-Apr-1996 #text_change 20-Jun-2000
C;Accession: JC4587
R;Hoogewerf, A.J.; Black, D.; Proudfoot, A.E.I.; Wells, T.N.C.; Power, C.A.
Biochem. Biophys. Res. Commun. 218, 337-343, 1996
A;Title: Molecular cloning of murine CC CKR-4 and high affinity binding of chemokines
A;Reference number: JC4587; MUID:96136324; PMID:8573157
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C;Date: 30.Sep-1993 #sequence_revision 30.Sep-1993 #text_change 20.Jun-2000
C;Date: 30.Sep-1993 #sequence_revision 30.Sep-1993 #text_change 20.Jun-2000
C;Accession: JN0605; JN0762; A47457
R;Xu, Y; Song, J; Bruno, JF; Bruno,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           72 SMTDVYLLNLAISDLLFVLSLPFW-GYYAADQWVFGLGLCKIVSWMYLVGFYSGIFFIML 130
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              112 ISMDRYLLMKYPFREHFLQKKEFAILISLAVWALVTLEVLPMLTFINSVPKEEGSNCIDY 171
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       232 LAVVIFSILFTPYHIMRNLRIASRLDSWPQGCT-QKAIKSIYTLTRPLAFLNSAINPIFY 290
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   246 GVVVLFLGFWTPYNVVLFLETLVELEVL-QDCTLERYLDYAIQATETLGFIHCCLNPVIY 304
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              S-SNVYLFNLSISDFAFLCTLPILIKSYANDKGTYGDVLCISNRYVLHTNLYTSILFLTF 111
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         172 ASSGNPEHNLIYSLCLTLLGFLIPLSVMCFFYYKMVVFLKRRSQQQATALPLDKPQRLVV 231
215 MIICYTGIIKILLERPNEKKS-----KAVRLIFVIMIIFFLFWTPYNL--TILISVFQDF 267
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
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                                                                                                                                                                      268 LFTHECEQSRHLDLAVQVTEVIAYTHCCVNFVIYAFVGERFRKYL----RQLF 316
                                                                                                                  258 SWPQGCTQ-KAIKSIYTLTRPLAFLNSAINPIFYFLMGDHYREMLISKFRQYF 309
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DB 2; Length 360;
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Best Local Similarity 28.4%; Pred. No. 8.2e:20;
Matches 93; Conservative 57; Mismatches 136; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         291 FLMGDHYREMLISKFRQYFKSLTSFRT 317
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            305 FFLGE-----KFRKYITQL--FRT 321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              chemokine (C-C) receptor 4 - mouse
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A; Molecule type: DNA
A; Residues: 1-388 <XUY>
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                                                                                                                                       δλ
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           A,Title: Molecular cloning, functional expression, and signaling characteristics of a C-A;Reference number: A45177; MUID:93161416; PMID:7679328
A;Accession: A45177
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A;Status: preliminary; translated from GB/EMBL/DDBJ
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A; Map position: 3p21-3p21
C; Superfamily: vertebrate rhodopsin
C; Superfamily: vertebrate rhodopsin
C; Superfamily: vertebrate rhodopsin
C; Superfamily: vertebrate rhodopsin
C; Superfamily: vertebrate rhodopsin
C; Stepords: disulfide bond; C protein-coupled receptor; glycoprotein; phosphoprotein; c; 3d-60/Domain: transmembrane #status predicted <TM3>
F; 10-91/Domain: transmembrane #status predicted <TM4>
F; 105-223/Domain: transmembrane #status predicted <TM5>
F; 240-264/Domain: transmembrane #status predicted <TM5>
F; 240-264/Domain: transmembrane #status predicted <TM7>
F; 280-305/Domain: transmembrane #status predicted <TM7>
F; Shinding site: carbohydrate (Asn) (covalent) #status predicted
F; 24-733, 106-183/Disulfide bonds: #status predicted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      F;345/Binding site: phosphate (Ser) (covalent) (by casein kinase II) #status predicted
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              chemokine (C-C) receptor 1 - human
N;Alternate names: C-C CKR-1; macrophage inflammatory protein-1-alpha receptor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LAVWALVTLEVLPMLTFINSVPKEEGSNC-IDYASSGNPEHNLIYSLCLTLLGFLIPLSV 198
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       155 IIIWALAILASMPGLYFSKTQWEFTHHTCSLHFPHESLREWKLFQALKLNLFGLVLPLLV 214
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MCFFYYKMVVFLKRRSQQQATALPLDKPQRLVVLAVVIFSILFTPYHIMRNLRIASRLD- 257
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DKGTYGDVLC--ISNRYVLHTNLYTSILFLTFISMDRYLLMKYPFREHFLQKKEFAILIS 139
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DDWVFGDAMCKILSGFY--YTGLYSEIFFIILLTIDRYLAIVHAVFALRARTVTFGVITS 154
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            37 LPPLYSLVFVIGLVGNILVVLVLVQYKRLKNMTSIYLLNLAISDLLFLFTLPFWIDYKLK 96
                                    149 VAVWLAVTTQCLPTAIFAATGIQRNRTVCYDLSPPALATHYMPYGMALTVIGFLLPFAAL 208
                                                                                                                                            200 CFFYYKMVVFLKRRSQQQATALPL----DKPQRLVVLAVVIFSILFTPYHIMRNLRIAS 254
                                                                                                                                                                                                                                         209 LACYCLLAC---RLCRQDGPAEPVAQERRGKAARMAVVVAAAFAISFLPFHITKTAYLAV 265
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   22 LSAFYAIEFIFGLLGNVTVVFGYLFCMKNWNSSNVYLFNLSISDFAFLCTLPILIKSYAN 81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           A;Residues: 1-355 <RES>
A;Cross-references: GB:L10918; NID:9292416; PIDN:AAA36543.1; PID:9292417
C;Genetics:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             A:Cross-references: GB:L10918; NID:g292416; PIDN:AAA36543.1; PID:g292417
A:Experimental source: HL60 cells
                                                                                                                                                                                                                                                                                                                                                                                                255 RLDSWPQGCTQKAIKSIYTLTRPLAFLNSAINPI-FYFLMGDHYREMLISKFRQ 307
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              19.9%; Score 328; DB 2; Length 355; 29.0%; Pred. No. 6.1e-20; tive 63; Mismatches 127; Indels
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A;Cross-references: GDB:138446; OMIM:601159
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A; Status: nucleic acid sequence not shown
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Med. 177, 1421-1427, 1993
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Matches 85; Conserv
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A; Residues: 1-355 <RES>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     A; Molecule type: mRNA
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A;Cross-references: GB:L14856; NID:g292499; PIDN:AAA36623.1; PID:g292500
R;Yamada, Y.; Kagimoto, S.; Kubota, A.; Yasuda, K.; Masuda, K.; Someya, Y.; Ihara, Y.; Il
Biochem. Biophys. Res. Commun. 195, 844-852, 1993
A;Title: Cloning, functional expression and pharmacological characterization of a fourth
A;Reference number: JN0762; MUID:93384611; PMID:8373420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      C; Superfamily: vertebrate rhodopsin
C; Reywords: G protein-coupled receptor; glycoprotein; hormone receptor; lipoprotein; phd
C; Reywords: G protein-coupled receptor; glycoprotein; hormone receptor; lipoprotein; phd
F; NJ -13 Domain: transmembrane #status predicted <TM3>
F; 102-142/Domain: transmembrane #status predicted <TM3>
F; 102-144/Domain: transmembrane #status predicted <TM3>
F; 102-144/Domain: transmembrane #status predicted <TM5>
F; 201-244/Domain: transmembrane #status predicted <TM5>
F; 201-24/ADmain: transmembrane #status predicted <TM5>
F; 21-24/ADmain: transmembrane #status predicted <TM5>
F; 21-24/ADmain; transmembrane #status predicted <TM5>
F; 21-24/Binding site: carbohydrate (Ser) (covalent) #status predicted 
F; 119-198/Disulfide bonds: #status predicted 
F; 119-198/Disulfide site: phosphate (Ser) (covalent) (by cAMP-dependent kinase) #status pre F; 327/Binding site: palmitate (Cys) (covalent) #status predicted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             A;Molecule type: DNA
A;Residues: 1-82, T', 84-364, K', 366-388 <ROH>
A;Cross-references: GB:L07833; NID:g307429; PIDN:AAA60565.1; PID:g307430
A;Note: sequence extracted from NCBI backbone (NCBIN:130856, NCBIP:130858)
C:Comment: This protein mediates the diverse actions of the tetradecaptide somatostatin.
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R;Rohrer, L.; Raulf, F.; Bruns, C.; Buettner, R.; Hofstaedter, F.; Schule, R.
Proc. Natl. Acad. Sci. U.S.A. 90, 4196-4200, 1993
A;Title: Cloning and characterization of a fourth human somatostatin receptor.
A;Reference number: A47457; MUID:93248256; PMID:8483934
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             A; Cross-references: GDB:202662; OMIM:182454
A; Map position: 20p11.2-20p11.2
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A; Residues: 1-388 <YAM>
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Job time : 26 secs

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GenCore version 5.1.3
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OM protein . protein search, using sw model

April 2, 2003, 14:32:31 ; Search time 16 Seconds Run on:

(without alignments) 821.750 Million cell updates/sec

US-09-891-138A-2

Perfect score:

1 MAQNLSCENWLATEAILNKY.....REMLISKFRQYFKSLTSFRT 317 Sequence:

BLOSUM62 Scoring table:

Gapop 10.0 , Gapext 0.5

112892 Total number of hits satisfying chosen parameters:

112892 segs, 41476328 residues

Searched:

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Maximum Match 100% Listing first 45 summaries Post-processing: Minimum Match 0%

SwissProt\_40:\* Database :

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

## SUMMARTES

		Description	P49651 rattus norv	550	304.2 hos	b on d	_	P49652 meleadria		gallus g		mus mus		P41231 homo sapien	035811 rattus norv		homo	mus m		ratto	qallus	rattus	T.	macac	P32246 homo sapien	homod	mus m	Q9z0d9 mus musculu	homod		xeno	_	=	33 bos t	737
SUMMARIES		di	P2YR_RAT	P2YR_MOUSE	P2YR BOVIN	P2YR HUMAN	P2YR CHICK	P2YR MELGA	P2Y8_XENLA	P2Y3_CHICK	P2Y2_RAT	P2Y2_MOUSE	P2Y3_MELGA	P2Y2_HUMAN	P2Y4_RAT	C3X1_HUMAN	P2Y4_HUMAN	P2Y4_MOUSE	CKR4_HUMAN	P2Y6_RAT	P2Y5_CHICK	C3X1_RAT	P2Y6_HUMAN	CKR1_MACMU	CKR1_HUMAN	CLT2_HUMAN	CKR4_MOUSE	- 1	SSR4_HUMAN	CLT2_PIG	APJ_XENLA	IL8B_MOUSE	GPR1_HUMAN	SSR2_BOVIN	SSR4 RAT
		DB	-	-	٦	П	Н		Н	-	Н	-	1	Н	-	Н	7	-	-	Н		П		-	-	-	٦	_	-	-	Н			٦	-
		Length	373	373	373	373	362	362	537	328	374	373	328	377	361	355	365	361	360	328	308	354	328	355	355	346	360	354	388	345	353	359	355	368	384
æ	Query	Match	29.0	28.8	28.7	28.7	28.6	28.6	23.4	23.0	22.7	22.6	22.5	22.0	21.5	21.4	21.3	20.8	20.4	20.4	20.5	20.5	20.1	19.9	19.9	19.8	19.8	19.7	19.7	19.4	19.3	19.3	19.2	19.2	19.2
		Score	479	7	7	474		472.5	386.5	379.5	374	373.5	3/1.5	363.5	354	353	352	343	336.5	336	333	332.5	332	329	328	346.5	326.5	325.5	325.5	319.5	319	318.5	317.5	317	316.5
	Result	NO.		7	m	4	٠.	9	7	Φ,	σ,	010	7	12	13	14	15	16	17	18	19	20	21	22	23	<b>4</b> 1	52	97	17	87	29	30	31	32	33

macaca mula	orvetolagus	homo sanien	homo sanien	Sus serofa	homo sanien	pan troglod	macaca mula	canie famil	homo sanien	homo sanien	mus musculu
097664								097571			
GPR1 MACMU	IL8A RABIT	CKR8 HUMAN	SSR2 HUMAN	SSR2_PIG	P2Y9 HUMAN	IL8B_PANTR	CKR8 MACMU	IL8B CANFA	P2Y5 HUMAN	IL8B_HUMAN	CLT2_MOUSE
Н	Н	Н	7	Н	-	-	~	щ	7	Н	٦
355	355	355	369	369	370	353	356	356	344	360	309
-	19.1	19.1	19.0	19.0	19.0	19.0	19.0	19.0	19.0	18.9	18.9
19.	_										
		315	314	314	314	313.5	313.5	313.5	313	312.5	311.5

## ALIGNMENTS

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This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation. The Buropaen Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                    Eukaryota; Metazoa; Chórdata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Rattus.
NCBI_TaxID=10116;
                                                                                                                                                                                                                                                                                                              -:- SUBCELLULAR LOCATION: Integral membrane protein.
-:- TISSUE SPECIFICITY: EXPRESSED IN MUSCLE, HEART, LIVER, KIDNEY, LUNG, BRAIN, SPLEEN, BUT NOT IN TESTIS.
-:- SIMILARITY: BELONGS TO FAMILY 1 OF G-PROTEIN COUPLED RECEPTORS.
                                                                01-FEB-1996 (Rel. 33, Last sequence update)
01-FEB-1996 (Rel. 33, Last annotation update)
P2Y purinoceptor 1 (ATP receptor) (P2Y1) (Purinergic receptor).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 (POTENTIAL).
CYTOPLASMIC (POTENTIAL).
2 (POTENTIAL).
EXTRACELLULAR (POTENTIAL).
3 (POTENTIAL).
CYTOPLASMIC (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        G-protein coupled receptor; Transmembrane; Glycoprotein. DOMAIN 1 52 EXTRACELLULAR (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   4 (POTENTIAL).
EXTRACELLULAR (POTENTIAL).
5 (POTENTIAL).
CYTOPLASMIC (POTENTIAL).
                              373 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Pfam; PF00001; 7tm_1; 1.
PRNTMS; PR00237; GPCRRHODOPSN.
PROSITE; PS00237; GPPOTEIN RECEP_F11; 1.
PROSITE; PS50262; G_PROTEIN_RECEP_F12; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          6 (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           HSSP; P34996; 1DDD.
InterPro; IPR000276; GPCR_Rhodpsn.
                                                   01-FEB-1996 (Rel. 33, Created)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           EMBL; U22830; AAA91303.1; -.
                                                                                                                         Rattus norvegicus (Rat).
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74
87
109
1126
1147
1166
218
238
238
265
                                                                                                                                                                                        SEQUENCE FROM N.A.
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                           P2YR_RAT
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RESULT 1
              P2YR_RAT
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Thu Apr

us-09-891-138a-2.rsp

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between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          "Thromboresistance in P2Y1 receptor knockout mice.";
Submitted (AuG-1999) to the EMBL/GenBank/DDBJ databases.
-!- FUNCTION: RECEPTOR FOR EXTRACELLULAR ADENINE NUCLEOTIDES SUCH AS
ATP AND ADP. IN PANCREATIC ISLETS, MAY MEDIATE SOME OF THE EFFECTS
OF EXTRACELLULAR ATP ON INSULIN SECRETION.
-!- SUBCELLULAR LOCATION: Integral membrane protein.
-!- SIMILARITY: BELONGS TO FAMILY 1 OF G-PROTEIN COUPLED RECEPTORS.
                                                                                                                                                                                                                                                                       80 ANDKG-TYGDVLCISNRYVLHTNLYTSILFLTFISMDRYLLMKYPFREHFLQKKEFAILI 138
                                                                                                                                                                                                                                                                                                                                                                                           139 SLAVWALVTLEVLPMLTFINS-VPKEEGSNCIDYASSGNPEHNLIYSLCLTLLGFLIPLS 197
                                                                                                                                                                                                                                                                                                                                                                                                                    198 VMCFFYYKMVVFLKRRSQQQATALPL-DKPQRLVVLAVVIFSILFTPYHIMRNLRIASRL 256
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  232 LILGCYGLIVRALIYKDLDNS---PLRRKSIYLVIIVLTVFAVSYIPFHVMKTMNLRARL 288
                                                                                                                                                                                                                                                                                                                                             112 FNKTDWIFGDVMCKLQRFIFHVNLYGSILFLTCISAHRYSGVVYPLKSLGRLKKKNAIYV 171
                                                                                                                                                                                                                     8; Gaps
                                                                                                                                                                                                                                                   20 YYLSAFYAIEFIFGLLGNVTVVFGYLFCMKNWNSSNVYLFNLSISDFAFLCTLPILIKSY 79
 EXTRACELLULAR (POTENTIAL).
7 (POTENTIAL).
CYTOPLASMIC (POTENTIAL).
BY SIMILARITY.
N-LINKED (GLCNAC. .) (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     01-FEB-1996 (Rel. 33, Created)
01-FEB-1996 (Rel. 33, Last sequence update)
15-JUN-2002 (Rel. 41, Last annotation update)
P2Y purinoceptor 1 (ATP receptor) (P2X1) (Purinergic receptor).
                                                                                                                                                                               29.0%; Score 479; DB 1; Length 373; 37.3%; Pred. No. 5.4e-25; ive 57; Mismatches 115; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           257 D-SWPQGCT-QKAIKSIYTLTRPLAFLNSAINPIFYFLMGDHYREML 301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TISSUE-Insullinoma;
MEDLINE-95298025; PubMed=7779087;
TOKUYAMA Y., Hara M., Jones E.M.C., Fan Z., Bell G.I.;
Tokuyama Y., Hara M., Jones P2Y purinoceptors.";
Biochem. Biophys. Res. Commun. 211:211-218(1995).
                                                                                                                                              6DDF676287B5E648 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRT;
                                                                                                                                                   42321 MW;
                                                                                                                                                                                                                         Matches 107; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Mus musculus (Mouse)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE FROM N.A.
                                                                                                                                                   373 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A.
                                                                                                                                                                                                          Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   P2YR_MOUSE
P49650;
                        TRANSMEM
DOMAIN
DISULFID
                                                                            CARBOHYD
                                                                                                 CARBOHYD
                                                                                                                  CARBOHYD
                                                                                                                                   CARBOHYD
                                                                                                                                                       SEQUENCE
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         DOMAIN
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80 ANDKG-TYGDVLCISNRYVLHTNLYTSILFLTFISMDRYLLMKYPFREHFLQKKEFAILI 138
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              231 VLILGCYGLIV--KALIYNDLDNSPLRRKSIYLVIIVLTVFAVSYIPFHVMKTMNLRARL 288
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   112 FNKTDWIFGDAMCKLQRFIFHVNLYGSILFLTCISAHRYSGVYYPLKSLGRLKKKNAIYV 171
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              139 SLAVWALVTLEVLPMLTFINS-VPKEEGSNCIDYASSGNPEHNLIYSLCLTLLGFLIPLS 197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              20 YYLSAFYAIEFIFGLLGNVTVVFGYLFCMKNWNSSNVYLFNLSISDFAFLCTLPILIKSY 79
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Bos taurus (Bovine).
Eukaryota: Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia: Eutheria; Cetartiodactyla; Ruminantia; Pecora; Bovoidea;
Bovidae; Bovinae; Bos.
NCBI_TaxID=9913;
                                                                                                                                                                                                                                                                                                                                                                                                                                                            N-LINKED (GLCNAC. .) (POTENTIAL).
N-LINKED (GLCNAC. .) (POTENTIAL).
N-LINKED (GLCNAC. .) (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 01-FEB-1996 (Rel. 33, Created)
01-FEB-1996 (Rel. 33, Last sequence update)
15-JUN-2002 (Rel. 41, Last annotation update)
P2Y purinoceptor 1 (ATP receptor) (P2XI) (Purinergic receptor).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DB 1; Length 373;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               55; Mismatches 117; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   257 D-SWPQGCT-QKAIKSIYTLTRPLAFLNSAINPIFYFLMGDHYREML 301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PRINTS; PR00237; GPCKRHODOPSN.
PROSITE; PS00237; G_PROTEIN_RECEP_F1_1; 1.
PROSITE; PS50262; G_PROTEIN_RECEP_F1_2; 1.
G-protein coupled receptor; Transmembrane; Glycoprotein.
                                                                                                                                                                                                                                                                                3 (POTENTIAL).
CYTOPLASMIC (POTENTIAL).
4 (POTENTIAL).
EXTRACELLULAR (POTENTIAL).
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EXTRACELLULAR (POTENTIAL).
                                                                                                                                                                                                  EXTRACELLULAR (POTENTIAL).
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                                                                                                                                                                                                                                                                 EXTRACELLULAR (POTENTIAL).
                                                                                                                                                                                                                                 CYTOPLASMIC (POTENTIAL).
2 (POTENTIAL).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (GECNAC
                                                                                                                                                                                                                                                                                                                                                                                                              (POTENTIAL).
                                                                                                                                                                                                                     (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                   5 (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                               BY SIMILARITY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 475;
or send an email to license@isb-sib.ch).
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                                                                              MGD; MGI:105049; P2ryl.
InterPro; IPR000276; GPCR_Rhodpsn.
Pfam; PF00001; 7tm_1; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   42212 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     28.8%;
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                                                EMBL; AJ245636; CAB57317.1;
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                                    EMBL; U22829; AAA91302.1;
                                                                                                                                                                                                       Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     373 AA;
                                                                  HSSP; P34996; 1DDD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            P2YR_BOVIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        107;
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TRANSMEM
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                                                                                                                                                                                                         DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Matches
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257 D-SWPQGCT-QKAIKSIYTLTRPLAFLNSAINPIFYFLMGDHYREML 301

172 SVLVWLIVVVGISPILFYSGTGIRKNKTITCYDTTSDEYLRSYFIYSMCTTVAMFCVPLV 231

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SLAVWALVTLEVLPMLTFINS-VPKEEGSNCIDYASSGNPEHNLIYSLCLTLLGFLIPLS 197
                                                                                                                                                                                                                                                                              Neurobiol. Dis. 5:259-270(1998).
-!- FUNCTION: RECEPTOR FOR EXTRACELLULAR ADENINE NUCLEOTIDES SUCH AS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              8; Gaps
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                                                                                                                                                                                                                     Deng G., Matute C., Kumar C.K., Fogarty D.J., Miledi R.; "Cloning and expression of a P2y purinoceptor from the adult bovine
                                                                                                                                                                                                                                                                                                                       ATP AND ADP.
-!- SUBCELLULAR LOCATION: Integral membrane protein.
-!- SIMILARITY: BELONGS TO FAMILY 1 OF G-PROTEIN COUPLED RECEPTORS.
                                                         MEDLINE-95352058; PubMed-7626079; Henderson D.J., Elliot D.G., Smith G.M., Webb T.E., Dainty I.A.; "Cloning and characterisation of a bovine P2x receptor."; Biochem. Biophys. Res. Commun. 212:648-656(1995).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (GLCNAC. . .) (POTENTIAL). (GLCNAC. . .) (POTENTIAL).
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1 (POTENTIAL).
CYTOPLASMIC (POTENTIAL).
2 (POTENTIAL).
EXTRACELLULAR (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               28.7%; Score 474; DB 1; Length 37 36.6%; Pred. No. 1.2e-24; live 58; Mismatches 116; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PRINTS; PR00237; GPCRRHODOPSN.
PROSITE; PS00237; G_PROTEIN_RECEP_F1_1; 1.
PROSITE; PS50202; G_PROTEIN_RECEP_F1_2; 1.
G_PROTEIN_COUPLED receptor; Transmembrane; Glycoprotein.
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6 (POTENTIAL).
EXTRACELLULAR (POTENTIAL).
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CYTOPLASMIC (POTENTIAL).
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CYTOPLASMIC (POTENTIAL).
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N-LINKED (GLC!
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InterPro; IPR000276; GPCR_Rhodpsn.
Pfam; PF00001; 7tm_1; 1.
                                                                                                                                                                           TISSUE=Corpus callosum;
MEDLINE=99064562; PubMed=9848096;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             EMBL; X87628; CAA60958.1; -. EMBL; U34041; AAC78275.1; -.
                                      TISSUE=Aortic endothelium;
MEDLINE=95352058; PubMed=70
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                     SEQUENCE FROM N.A.
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"Molecular basis for ADP-induced platelet activation. II. The P2Y1
receptor mediates ADP-induced intracellular calcium mobilization and
shape change in platelets.";
J. Biol. Chem. 273:2030-2034(1998).
I. FUNCTION: RECEPTOR FOR EXTRACELLULAR ADENINE NUCLEOTIDES SUCH AS
ATP AND ADP. IN PLATELETS BINDING TO ADP LEADS TO MOBILIZATION OF
INTRACELULAR CALCIUM IONS VIA ACTIVATION OF PHOSPHOLIPASE C, A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            -!- SUBCELLULAR LOCATION: Integral membrane protein.
-!- INDUCTION: REPRESSED BY THE P2Y1 RECEPTOR-SPECIFIC AWTAGONISTS
A3P5PS, A3P5P AND A2P5P. THESE INHIBIT CALCIUM ION MOBILIZATION
AND SHAPE CHANGE IN PLATELETS.
-!- SIMILARITY: BELONGS TO FAMILY 1 OF G-PROTEIN COUPLED RECEPTORS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ayyanathan K., Tania W., Harbansjit S., Raghbir A.S., Barnard E.A.,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MEDLINE=96257237; PubMed=866290;
Leon C., Vial C., Cazenave J.-P., Gachet C.;
"Cloning and sequencing of a human cDNA encoding endothelial P2X1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                     01-FEB-1996 (Rel. 33, Last sequence update)
15-JUN-2002 (Rel. 41, Last annotation update)
P2Y purinoceptor 1 (ATP receptor) (P2Y1) (Purinergic receptor).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Janssens R., Communi D., Pirotton S., Samson M., Parmentier, M.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      "Cloning and tissue distribution of the human P2Y1 receptor."; Blochem. Biophys. Res. Commun. 221:588-593(1996).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE OF 95-373 FROM N.A., FUNCTION, AND INHIBITION STUDIES
289 DFQTPEMCAFNDRVYATYQVTRGLASLNSCVDPILYFLAGDTFRRRL 335
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         'Cloning and chromosomal localization of the human P2Y1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             3iochem. Biophys. Res. Commun. 218:783-788(1996)
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                                                                                                                                                                                                                    PRT;
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MEDLINE=98113162; PubMed=9442040;
                                                                                                                                                                                                                                                                                01-FEB-1996 (Rel. 33, Created)
01-FEB-1996 (Rel. 33, Last sequ
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SEQUENCE FROM N.A.
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P47900;
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P2YR_HUMAN
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the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       198 VMCFFYYKMVVFLKRRSQQQATALPL-DKPQRLVVLAVVIFSILFTPYHIMRNLRIASRL 256
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              172 SVLVWLIVVVAISPILFYSGTGVRKNKTITCYDTTSDEYLRSYFIYSMCTTVAMFCVPLV 231
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BY SHILDARITY

N'LINKED (GLCNAC...) (POTENTIAL).

N'LINKED (GLCNAC...) (POTENTIAL).

N'LINKED (GLCNAC...) (POTENTIAL).

N'LINKED (GLCNAC...) (POTENTIAL).
                                                                                                                                                                              InterPro: i'PR000276; GPCR_Rhodpsn.
Pfam; PF00001; 7tm_1; 1.
PRINTS; PR00237; GPCRRHODOPSN.
PROSITE; PS00237; G_PROTEIN_RECEP_F1_1; 1.
PROSITE; PS0026; G_PROTEIN_RECEP_F1_2; 1.
G-protein coupled receptor; Transmembrane; Glycoprotein; Platelet; Blood coagulation.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    28.7%; Score 474; DB 1; Length 373; 37.3%; Pred. No. 1.2e-24;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 37.3%; Pred. No. 1.2e-24; ive 55; Mismatches 117; Indels
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EXTRACELLULAR (POTENTIAL).
5 (POTENTIAL).
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CYTOPLASMIC (POTENTIAL).
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EXTRACELLULAR (POTENTIAL).
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CYTOPLASMIC (P
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CYTOPLASMIC (P
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CYTOPLASMIC (1
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                                                                                          U42030; AAA97873.1; -. U42029; AAA97872.1; -. S81950; AAB47091.1; -.
                                                                              EMBL; 249205; CAA89066.1; -.
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PRT;

STANDARD;

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RESULT 5

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MEDLINE=970262318; PUMMed=8872457;

MEDLINE=970262318; PUMMed=8872457;

Van Rhee A.M., Fischer B., van Galen P.J.M., Jacobson K.A.;

van Rhee A.M., Fischer B., van Galen P.J.M., Jacobson K.A.;

van Rhee A.M., Fischer B., van Galen P.J.M., Jacobson K.A.;

van Rhee A.M., Fischer B., van Galen P.J.M., Jacobson K.A.;

LD CHOURTION: RECEPTOR FOR EXTRACELLULAR ADENTHE NUCLEOTIDES SUCH AS

INSENSITIVE G-PROTEIN, PROBABLY BELONGING TO THE GQ FAMILY THAT

ATP AND ADP. SEBNS TO MEDIATE BELONGING SCOND MESSENGER SYSTEM.

CONTINUE G-PROTEIN SPINAL COLCLICIUM SECOND MESSENGER SYSTEM.

CONTINUE ROBELLULAR LOCATION: Integral membrane protein.

CONTINUE BEGNINGSCOLE. IS NOT DETECTED IN THE HEART, LIVER,

SPINALEM AND KIDNEY.

CONTINUE AND KIDNEY.

STOMACH, LUNG AND KIDNEY.

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PIR; 10Db; 11-01L-96; GPCR_Rhodpsn.

PRAMP: PRO0001; 7tm_1; 1.

PRINE; PRO0001; 7tm_1; 1.

PRINE; PS00237; G_PROTEIN.RECEP_F1_1; 1.

PROSITE; PS50262; G_PROTEIN.RECEP_F1_2; 1.

PROSITE; PS50262; G_PROTEIN.RECEP_F1_2; 1.

G_PICTEIN COUPLED F1_2; 1.

G_PICTEIN RECEPERIORERECEPERIORERECEPERIORERECEPERIORERECEPERIORERECEPERIORERECEPERIORERECEPERIORERECEPERIORERECEPERIORERECEPERIORERECEPERIORERECEPERIORERECEPERIORERECEPERIORERECEPERIORERECEPERIORERECEPERIORERECEPERIORERECEPERIORERECEPERIORERECEPERIORERECEPERIORERECEPERIORERECEPERIORERECEPERIORERECEPERIORERECEPERIORERECEPERIORERECEPERIORERECEPERIORERECEPERIORERECEPERIORERECEPERIORERECEPERIORERECEPERIORERECEPERIORERECEPERIORERECEPERIORERECEPERIORERECEPERIORERECEPERIORERECEPERIORERECEPERIORERECEPERIORERECEPERIORERECEPERIORERECEPERIORERECEPERIORERECEPERIORERECEPERIORERECEPERIORERECEPERIORERECEPERIORERECEPERIORERECEPERIORERECEPERIORERECEPERIORERECEPERIORERECEPERIORERECEPERIORERECEPERIORERECEPERIORERECEPERIORERECEPERIORERECEPERIORERECEPERIORERECEPERIORERECEPERIORERECEPERIORERECEPERIORERECEPERIORERECEPERIORERECEPERIORERECEPERIORERECEPERIORERECEPERIORERECEPERIORERECEPERIORECEPERIORERECEPERIORERECEPERIORERECEPERIORERECEPERIORERECEPERIORECEPERIORERECEPERIORERECEPERIORERECEPERIORERECEPERIORERECEPERIORECEPERIORERECEPERIORERECEPERIORERECEPERIORERECEPERIORERECEPERIORECEPERIORERECEPERIORERECEPERIORERECEPERIORERECEPERIORERECEPERIORECEPERIORERECEPERIORERECEPERIORERECEPERIORERECEPERIORERECEPERIORECEPERIORERECEPERIORERECEPERIORERECEPERIORERECEPERIORERECEPERIORECEPERIORERECEPERIORERECEPERIORERECEPERIORERECEPERIORERECEPERIORECEPERIORERECEPERIORERECEPERIORERECEPERIORERECEPERIORERECEPERIORECEPERIORERECEPERIORERECEPERIORERECEPERIORERECEPERIORERECEPERIORECEPERIORERECEPERIORERECEPERIORERECEPERIORERECEPERIORERECEPERIORECEPERIORERECEPERIORERECEPERIORERECEPERIORERECEPERIORERECEPERIORECEPERIORERECEPERIORERECEPERIORERECEPERIORERECEPERIORERECEPERIORECEPERIORERECEPERIORERECEPERIORERECEPERIORERECEPERIORERECEPERIORECEPERIORERECEPERIORERECEPERIORERECEPERIORERECEPERIORERECEPERIORE
                                                                                                                                                                            Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Archosauria; Aves; Neognathae; Galliformes; Phasianidae; Phasianinae;
                                                                                                                                                                                                                                                                                                                                                                                                                                        Cloning and functional expression of a brain G-protein-coupled ATP
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CYTOPLASHIC (POTENTIAL).
BY SIMILARITY.
N-LINKED (GLCNAC. ..) (POTENTIAL).
                      01-FEB-1994 (Rel. 28, Created)
01-FEB-1994 (Rel. 28, Last sequence update)
15-DEC-1998 (Rel. 37, Last annotation update)
P2Y purinoceptor 1 (ATP receptor) (P2X1) (Purinergic receptor).
                                                                                                                                                                                                                                                                                                                                                                                      Webb T.E., Simon J., Krishek B.J., Bateson A.N., Smart T.G., King B.F., Burnstock G., Barnard E.A.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      EXTRACELLULAR (POTENTIAL).
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EXTRACELLULAR (POTENTIAL)
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CYTOPLASMIC (POTENTIAL).
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                                                                                                                                                                                                                                                                                                                                                                   MEDLINE=93285340; PubMed=8508924;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          receptor.";
FEBS Lett. 324:219-225(1993).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  EMBL; X73268; CAA51716.1; -. PIR; S33733; S33733.
                                                                                                                                                     Gallus gallus (Chicken)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                  NCBI_TaxID=9031;
                                                                                                                                                                                                                                                                                                                                             rissue=Brain;
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                                                                                                                                                                                                                                                                                                                     61 LSISDFAFLCTLPILIKSYANDKG-TYGDVLCISNRYVLHTNLYTSILFLFFISMDRYLL 119
                                                                                                                                                       120 MKYPFREHFLQKKEFAILISLAVWALVTLEVLPMLTFINS-VPKEEGSNCIDYASSGNPE 178
                                                                                                                                                                                                            HNLIYSLCLTLLGFLIPLSVMCFFYYKMVVFLKRRSQQQATALPL-DKPQRLVVLAVVIF 237
                                                                                                                                                                                                                                                                      202 SYFVYSMCTTVFMFCIPFIVILGCYGLIVKALIYKDLDNS---PLRRKSIYLVIIVLTVF 258
                                                                                                                                                                                                                                                                                                     238 SILFTPYHIMRNLRIASRLD-SWPQGCT-QKAIKSIYTLTRPLAFLNSAINPIFYFLMGD 295
                                                                              10 WLA----TEALLNK----YYLSAFYAIEFIFGLLGNVTVVFGYLFCMKNWNSSNVYLFN 60
                                                           17; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Meleagris gallopavo (Common turkey).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Archosauria; Aves; Neognathae; Galliformes; Meleagrididae; Meleagris.
                                                                                                          22 WAAGNATTKCSLTKTGFOFYYLPTVYILVFITGFLGNSVAIWMFVFHMRPWSGISVYMFN 81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        rchem. Biophys. Res. Commun. 236,455-460(1997).
FUNCTION: RECEPTOR FOR EXTRACELLULAR ADENINE NUCLECTIDES SUCH AS ATP AND ADP. SEEMS TO MEDIATE ITS ACTION VIA A PERTUSSIS TOXIN INSENSITIVE G-PROTEIN. PROBABLY BELONGING TO THE GO FAMILY THAT ACTIVATE A PHOSPHATIDYLINOSITOL-CALCIUM SECOND MESSENGER SYSTEM. SUBCELLULAR LOCATION: Integral membrane protein.
TISSUE SPECIFICITY: MAINLY FOUND IN BLOOD, BRAIN, AND LUNG. TO A LESSER EXTENT IN STOWAGH, GUT, AND SKELETAL MUSCLE.
SIMILARITY: BELONGS TO FAMILY 1 OF G-PROTEIN COUPLED RECEPTORS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    01-FEB-1996 (Rel. 33, Created)
01-FEB-1996 (Rel. 33, Last sequence update)
15-JUL-1998 (Rel. 36, Last annotation update)
P2Y purinoceptor 1 (ATP receptor) (P2Y1) (Purinergic receptor) (6H1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MEDLINE-97382456; PubMed-9240460;
Li Q., Schachter J.B., Harden T.K., Nicholas R.A.;
"The 6H1 orphan receptor, claimed to be the p2y5 receptor, does not
mediate nucleotide-promoted second messenger responses.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MEDILNE-94335907; PubMed-8058061;
Filtz T.M., Li Q., Boyer J.L., Nicholas R.A., Harden T.K.;
"Expression of a cloned P2Y purinergic receptor that couples to
                          28.6%; Score 472.5; DB 1; Length 362; 35.9%; Pred. No. 1.4e-24; tive 58; Mismatches 121; Indels 17,
362 AA; 41194 MW; A806C88FB9514761 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                              PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              phospholipase C.";
Mol. Pharmacol. 46:8-14(1994).
                                                       Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                              STANDARD;
                                        Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            orphan receptor).
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                                                                                                                                                                                                                                                                                                                                                            296 HYREML 301
                                                                                                                                                                                                                                                                                                                                                                                       319 TFRREL 324
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                                                       Matches 110;
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 SEQUENCE
                          Query Match
                                           Local
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and for commercial
                      entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    179 HNLIYSLCLTLLGFLIPLSVMCFFYXKMVVFLKRRSQQQATALPL-DKPQRLVVLAVVIF 237
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               : Pred. No. 1.4e-24;
58; Mismatches 121; Indels 17; Gaps
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                                                                                                                                                                                                                                                                                                                                                                                                                               4 (POTENTIAL).

EXTRACELLULAR (POTENTIAL).

5 (POTENTIAL).

CYTOPLASHIC (POTENTIAL).

6 (POTENTIAL).

EXTRACELLULAR (POTENTIAL).

7 (POTENTIAL).

CYTOPLASHIC (POTENTIAL).

7 (POTENTIAL).

N-LINKED (GLCNAC...) (POTENTIAL).

N-LINKED (GLCNAC...) (POTENTIAL).

N-LINKED (GLCNAC...) (POTENTIAL).

N-LINKED (GLCNAC...) (POTENTIAL).

N-LINKED (GLCNAC...) (POTENTIAL).

N-LINKED (GLCNAC...) (POTENTIAL).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    28.6%; Score 472.5; DB 1; Length 362;
                                                                                                                                                         Interrus, Alban, Francis, 1.

PRINTS; PRO0037; GPGRHODDPSN.

PROSITE; PS00237; G_PROTEIN_RECEP_F1_1; 1.

PROSITE; PS50263; G_PROTEIN_RECEP_F1_2; 1.

G_PROSITE; PS50264; G_PROTEIN_RECEP_F1_2; 1.

G_PROSITE; PS50264; G_PROTEIN_RECEP_F1_2; 1.

G_PROSITE; PS50264; G_PROTEIN_RECEP_F1_2; 1.
      Usage by
                                                                                                                                                                                                                                                                                                                                               2 (POTENTIAL).
EXTRACELLULAR (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        3E128AB9EB64349C CRC64;
                                                                                                                                                                                                                                                                                                                             CYTOPLASMIC (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                           3 (POTENTIAL). CYTOPLASMIC (POTENTIAL).
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modified and this statement is not removed.
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                                                                                                         EMBL; AF012103; AAB65428.1; -. HSSP; P34996; 1DDD.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        41180 MW;
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                                                                                  EMBL; U09842; AAA18784.1;
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Query Match
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 140 LAVWALVTLEVLPMLTFINSVPKEEGSNCIDYASSGNPEHNLIYSLCLTLLGFLIPLSVM 199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               200 CFFYYKMVVFLKRR--SQQQATALPLDKPQ--RLVVLAVVIFSILFTPYHIMRNLRIASR 255
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DKGT -- YGDVLCISNRYVLHTNLYTSILFLTFISMDRYLLMKYPFREHFLQKKEFAILIS 139
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     105 DKNNWPFGEVLCKLVRFLFYANLYSSILFLTCISVHRYRGVCHPITSLRRMNAKHAVVIC 164
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  22 LSAFYAIEFIFGLLGNVTVVFGYLFCMKNWNSSNVYLFNLSISDFAFLCTLPILIKSYAN 81
                                                                                   TISSUE-Noural plate;
MEDLINE-9724734; PubMed-9139711;
MEDLINE-9724734; PubMed-9139711;
Bogdanov Y.D., Dale L., King B.F., Whittock N., Burnstock G.;
"Early expression of a novel nucleotide receptor in the neural plate
                                                                                                                                  of Xenopus embryos.";
J. Biol. Chem. 272:12583-12590(1997).
-!- FUNCTION: RECEPTOR FOR EXTRACELLULAR ATP, UTP, CTP, GTP AND ITP.
                                                                                                                                                                  THE ACTIVITY OF THIS RECEPTOR IS MEDIATED BY G PROTEINS WHICH ACTIVATE A PHOSPHATIDYLINOSITOL-CALCION SECOND MESSENGER SYSTEM, MAY PLAY A KEY ROLE IN THE EARLY DEVELOPMENT OF NEURAL TISSUE.

1. SUBCELLULAR LOCATION: Integral membrane protein.

1. SIMILARITY: BELONGS TO FAMILY 1 OF G-PROTEIN COUPLED RECEPTORS.
         Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi,
Amphibia; Batrachia, Anura, Mesobatrachia, Pipoidea, Pipidae,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (POTENTIAL)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      23.4%; Score 386.5; DB 1; Leuster 34, Pred, No. 9.2e-19;
                                                                                                                                                                                                                                                                                                                                                                                            PROSITE; PS00237; G_PROTEIN_RECEP_F1_1; 1.
PROSITE; PS50262; G_PROTEIN_RECEP_F1_2; 1.
G-protein coupled receptor; Transmembrane; Glycoprotein.
DOMAIN
1 49
EXTRACELLULAR (POTENTIAL).
TRANSMEM 50 70 1 (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       6 (POTENTIAL).
EXTRACELLULAR (POTENTIAL).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       EXTRACELLULAR (POTENTIAL)
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CYTOPLASMIC (POTENTIAL).
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Xenopus laevis (African clawed frog).
                                                                                                                                                                                                                                                                                                                                                                   nterPro; IPR000276; GPCR_Rhodpsn.
                                                                                                                                                                                                                                                                                                                                                                             Pfam; PF00001; 7tm_1; 1.
PRINTS; PR00237; GPCRRHODOPSN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                62024 MW;
                                                                                                                                                                                                                                                                                                                                           EMBL; X99953; CAA68213.1; -
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                                    Xenopodinae; Xenopus.
NCBI_TaxID=8355;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               537 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Similarity
                                                                         SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                        P34996
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DOMAIN
TRANSMEM
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            weed T.E., Henderson D., King B.F., Wang S., Simon J.,
Bateson A.N., Burnstock G., Barnard E.A.;
Bateson A.N., Burnstock G., Barnard E.A.;
"A novel G protein-coupled P2 purinoceptor (P2Y3) activated
preferentially by nucleoside diphosphates.";
Mol. Pharmacol. 50:258-265(1996).
-!- FUNCTION: RECEPTOR FOR EXTRACELLULAR ADP > UTP > ATP = UDP. THE
ACTIVITY OF THIS RECEPTOR IS MEDIATED BY G PROTEINS WHICH ACTIVATE
A PHOSPHATIDYLINOSITOL-CALCIUM SECOND MESSENGER SYSTEM.
-!- SUBCELLULAR LOCATION: Integral membrane protein.
-!- SIMILARITY: BELONGS TO FAMILY 1 OF G-PROTEIN COUPLED RECEPTORS.
225 AGCYGLMTRELMKPIVSGNQQT-LPSYKKRSIKTIIFVMIAFAICFMPFHITRTLYYYAR 283
                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gallus gallus (Chicken).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Archosauria; Aves; Neognathae; Galliformes; Phasianidae; Phasianinae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    N-LINKED (GLCNAC. . .) (POTENTIAL).
                                                                            256 LDSWPQGCTQXAIKSI---YTLTRPLAFLNSAINPIFYFLMGDHYREMLISKFRQ 307
                                                                                                           DB 1; Length 328;
                                                                                                                                                                                                                                                                                                                            01-NOV-1997 (Rel. 35, Created)
01-NOV-1997 (Rel. 35, Last sequence update)
16-OCT-2001 (Rel. 40, Last annotation update)
P2Y purinoceptor 3 (P2Y3) (Nucleoside diphosphate receptor).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          HSSP; 454390; ALC.
InterPro; IPR000276; GPCR_Rhodpsn.
Pfan; PF00001; 7tm_1; 1.
PRINTS; PR00237; GPCRHODDPSN.
PROSITE; PS00237; G_PROTEIN_RECEP_F1_1; FALSE_NEG.
PROSITE; PS50263; G_PROTEIN_RECEP_F1_2; 1.
G-profein coupled receptor; Transmembrane; Glycoprotein.
A. 22 EXTRACELLUAR (POTENTIAL).
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EXTRACELLULAR (POTENTIAL).
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EXTRACELLULAR (POTENTIAL)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MEDLINE=96319774; PubMed=8700132;
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                                                                                                                                                                                                                                                                              STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      117
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328 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NCBI_TaxID=9031;
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                                                                                                                                                                                                                                                                         P2Y3_CHICK
Q98907;
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TRANSMEM
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                                                                                                                                                 81 NDKGTYGDVLCISNRYVLHTNLYTSILFLTFISMDRYLLMKYPFRE-HFLQKKEFAILIS 139
                                                                                                                                                                                                 140 LAVWALVTLEVLPMLTFINSVPKEEGSNCIDYASSGNPEHNLIYSLCLTLLGFLIPLSVM 199
                                                                                                                                                                                                                        200 CFFYYKMVVFLKRRSQQQATAL--PLDKPQRLVVLAVVIFSILFTPYHIMRNLRIASRLD 257
                                                                                                                                                                                                                                                                                              204 LACYCSMARILCQKDELIGLAVHKKKDKAVRMIIIVVIVFSISFFPFHLTKTIYLIVRSS 263
                 63; Mismatches 135; Indels 11; Gaps
                                                  22 LSAFYAIBFIFGLLGNVTVVFGYLFCMKNWNSSNVYLFNLSISDFAFLCTLPILIKSYA- 80
                                                                             Rattus norvegicus (Rat).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Rattus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        activate a phosphatidylinositol-calcium second messenger system.
The affinity range is UTP = ATP > ATP-gamma-S >> 2-methylthio-ATP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           01-FEB-1995 (Rel. 31, Created)
01-OCT-1996 (Rel. 34, Last sequence update)
15-JUN-2002 (Rel. 41, Last annotation update)
P2Y purinoceptor 2 (P2X2) (P2U purinoceptor 1) (P2U1) (ATP receptor)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Rice W.R., Burton F.M., Fiedeldey D.T.; "Cloning and expression of the alveolar type II cell P2u-purinergic
                                                                                                                                                                                                                                                                                                                                                                    258 SWPQGCTQKAIKSIYTLTRPLAFLNSAINPIFYFLMGDHYRE------MLISKFRQ 307
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SUBCELLULAR LOCATION: Integral membrane protein.
SIMILARITY: BELONGS TO FAMILY 1 OF G-PROTEIN COUPLED RECEPTORS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       "Overexpression of P2Y2 purinoceptor in intimal lesions of the rat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Seye C.1., Gadeau A.P., Daret D., Dupuch F., Alzieu P., Capron L.,
Desgranges C.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Arterioscler. Thromb. Vasc. Biol. 17:3602-3610(1997).
-!- FUNCTION: Receptor for ATP and UTP coupled to G-proteins that activate a phosphatidylinositol-calcium second messenger systems.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    STRAIN-Wistar; TISSUB-Pituitary;
Chen Z.P., Krull N., Xu S., Levy A., Lightman S.L.;
Submitted (AUG-1995) to the EMBL/GenBank/DDBJ databases.
   Pred. No. 1.7e-18;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  J. Respir. Cell Mol. Biol. 12:27-32(1995).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                374 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MEDLINE=95110548; PubMed=7811468;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MEDLINE=98099857; PubMed=9437211;
29.68;
                   Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  STANDARD;
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  receptor."
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                 Matches
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78 SYA-NDKGTYGDVLCISNRYVLHTNLYTSILFLTFISMDRYLLMKYPFREHFLQKKEFAI 136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                137 LISLAVWALVTLEVLPMLTFINSVPKEEGSNCIDYASSGNPEHNLIYSLCLTLLGFLIPL 196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     152 RVAAVVWVLVLACQAPVLYFVTTSVRGTRITCHDTSARELFSHFVAYSSVMLGLLFAVPF 211
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        197 SVMCFFYYKMVVFLKRRSQQQA---TALPLDKPQ--RLVVLAVVIFSILFTPYHIMRNLR 251
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |:: | | : | : | | : | | 212 SIILVCY----VLMARRLLKPAYGTTGLPRAKRKSVRTIALVLAVFALCFLPFHVTRTLY 267
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       50; Mismatches 124; Indels 14; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                19 KY-YLSAFYAIEFIFGLLGNVTVVFGYLFCMKNWNSSNVYLFNLSISDFAFLCTLPILIK 77
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             32 KYVLLPVSYGVVCVLGLCLNVVALYIFLCRLKTWNASTTYMFHLAVSDSLYAASLPLLVY 91
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              P2X2_MOUSE STANDARD, PRT, 373 AA. P5X3_MOUSE STANDARD, PST383: 009031; Q9CP24; 01-JUN-1994 (Rel. 29, Created) 01-JUN-1994 (Rel. 29, Last sequence update) 15-JUN-2002 (Rel. 41, Last sequence update) P2X purinoceptor 2 (P2X2) (P2U purinoceptor 1) (P2U1) (ATP receptor) (Purinergic receptor).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
                                                                                                                                                                                                                                                                                                                                                                         N-LINKED (GLCNAC. .) (POTENTIAL).
N-LINKED (GLCNAC. .) (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DB 1; Length 374; 4.4e-18;
                                                                                                                                                                                                                                                                     EXTRACELLULAR (POTENTIAL).

5 (POTENTIAL).

CYTOPLASMIC (POTENTIAL).

EXTRACELLULAR (POTENTIAL).

7 (POTENTIAL).

CYTOPLASMIC (POTENTIAL).
                                                                 InterPro; IPR00276; GPCR_Rhodpsn.
Pfam; PF00001; 7tm_1; 1.
PRINTS, PR00237; GPCRHDDODSN.
PROSTIE; P850237; G_PROTEIN_RECEP_F1_1; 1.
PROSTIE; P850262; G_PROTEIN_RECEP_F1_2; 1.
G_Protein coupled receptor; Transmembrane; Glycoprotein.
                                                                                                                                                                                                                                                                                                                                                                                                    BY SIMILARITY.

C -> S (IN REF 1).

S -> R (IN REF 1).

A -> T (IN REF 1).

A -> D (IN REF 1).

A -> D (IN REF 1).
                                                                                                                                                        EXTRACELLULAR (POTENTIAL).
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EXTRACELLULAR (POTENTIAL)
                                                                                                                                                                                                                               3 (POTENTIAL).
CYTOPLASMIC (POTENTIAL).
                                                                                                                                                                                       CYTOPLASMIC (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               252 IASRLDSWPQGC-TQKAIKSIYTLTRPLAFLNSAINPIFYFLMG 294
                                                                                                                                                                         (POTENTIAL)
                                                                                                                                                                                                                                                              4 (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          22.7%; Score 374;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                               42137 MW;
             EMBL; U09402; AAA61565.1; -. EMBL; L46865; AAB02099.1; -.
                                          EMBL; U56839; AAC00048.1; -. HSSP; P34996; 1DDD.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       33.8%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                 143
166
188
374 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Best Local Similarity
Matches 96; Conserv
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173
195
221
246
269
287
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TRANSMEM
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TRANSMEM
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EMBL; AK017378; BAB30719.1;

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                                                                                                                                                                                                                                                                                                                                                              C STRAIN-C57BL/60; PUBMed=11217851;

X KAWAIN-C57BL/60; PUBMed=11217851;

X KAWAI J., Shinagawa A., Shibata K., Yoshino M., Itoh M., Ishii Y.,

R Arakawa T., Hara A., Fukunishi Y., Konno H., Adachi J., Fukuda S.,

A Alzawa K., Izawa M., Nishi K., Kiyosawa H., Kondo S., Yamanaka I.,

RA Alzawa K., Izawa M., Nishi K., Kiyosawa H., Kondo S., Yamanaka I.,

RA Alzawa K., Izawa M., Nishi K., Kiyosawa H., Kondo S., Yamanaka I.,

RA Alzawa K., Matsuda H.A., Sabhurner M., Batalov S., Casavant T.,

RA Sato T., Okasatarland T., Gissi C., King B., Kochiwa H.,

RA Schirmi L.M., Staubi F., Suzuki R., Tomitala M., Wagner L., Washio T.,

RA Sakai K., Okido T., Furuno M., Aono H., Baldarelli R., Barsh G.,

Blake J., Boffelli D., Bojunga N., Carninci P., de Bonaldo M.F.,

RA Gustincich S., Hill D., Hofmann M., Hume D.A., Kamiya M., Lee N. H.,

RA Sasaki H., Sato K., Schoenbach C., Seya T., Shibata Y., Storch K.-F.,

RA Sasaki H., Toyo-oka K., Wang K.H., Weitz C., Whittaker C., Wilming L.,

Mynashaw-Boris A., Yoshida K., Hasegawa Y., Kawaji H., Kohtsuki S.,

Mynashay-Boris A., Yoshida K., Rasegawa Y., Kawaji H., Kohtsuki S.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            -1- SUBCELLULAR LOCATION: Integral membrane protein.
-1- TISSUE SPECIFICITY: SPLEEN, TESTIS, KIDNEY, LIVER, LUNG, HEART AND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      and specificity.";
J. Biol. Chem. 270.4185-4188(1995).

--- FUNCTION: Receptor for ATP and UTP coupled to G-proteins that activate a phosphatidylinositol-calcium second messenger system.

The affinity range is UTP = ATP > ATP-gamma-S >> 2-methylthio-ATP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Erb L., Garrad R.C., Wang Y., Quinn T., Turner J.T., Weisman G.A.; "Site-directed mutagenesis of P2U purinoceptors. Positively charged amino acids in transmembrane helices 6 and 7 affect agonist potency
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SIMILARITY: BELONGS TO FAMILY 1 OF G-PROTEIN COUPLED RECEPTORS.
                                                                                                                                                                                                                                Enomoto K., Furuya K., Moore R.C., Yamagishi S., Oka T., Maeno T.; "Expression cloning and signal transduction pathway of P2U receptor in mammary tumor cells.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    annotation of a full-length mouse cDNA collection.";
                                                          MEDLINE-93281707; PubMed-7685114;
Lustig K.D., Shiau A.K., Brake A.J., Julius D.;
"Expression cloning of an ATP receptor from mouse neuroblastoma
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MUTAGENESIS OF LYS-107; ARG-110; HIS-262; ARG-265; LYS-289 AND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Strausberg R.;
Submitted (APR-2001) to the EMBL/GenBank/DDBJ databases.
                                                                                                                                                 Proc. Natl. Acad. Sci. U.S.A. 90:5113-5117(1993).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MEDLINE-95181393; PubMed-7876172;
                                                                                                                                                                                                    SEQUENCE FROM N.A.
MEDLINE-96316177; Pubmed-8739319;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   EMBL; AK005013; BAB23746.1; -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  EMBL; L14751; AAA39871.1; -. EMBL; S83099; AAB50735.1; -.
                                                                                                                                                                                                                                                                                                             Biol. Signals 5:9-21(1996).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Nature 409:685-690(2001).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TISSUE-Breast tumor;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SECUENCE FROM N.A.
                                            SEQUENCE FROM N.A.
NCBI_TaxID=10090;
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K->II. NO EPEPET ON RECEPTOR ACTIVATION.

K->II. NO EPEPET ON RECEPTOR ACTIVATION.

E -> D (IN REF. 2).

S -> R (IN REF. 2).

T -> N (IN REF. 2).

V -> M (IN REF. 2).

V -> M (IN REF. 2).

V -> L (IN REF. 2).

V -> M (IN REF. 2).

V -> P (IN REF. 2).

V -> P (IN REF. 2).

V -> P (IN REF. 2).

V -> P (IN REF. 2).

KDI -> P V (IN REF. 2).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            137 LISLAVWALVTLEVLPMLTFINSVPKEEGSNCIDYASSGNPEHNLIYSLCLTLLGFLIPL 196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   152 RVAAVVWVLVLACQAPVLYFVTTSVRGTRITCHDTSARELFSHFVAYSSVMLGLLFAVPF 211
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            197 SVMCFFYXKMVVFLKRRSQQQATALPLDKPQ--RLVVLAVVIFSILFTPYHIMRNLRIAS 254
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           78 SYA-NDKGTYGDVLCISNRYVLHTNLYTSILFLTFISMDRYLLMKYPFREHFLQKKEFAI 136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          19 KY-YLSAFYALEFIFGLLGNVTVVFGYLFCMKNWNSSNVYLFNLSISDFAFLCTLPILIK 77
                                                                                                                                                                                                                                                                                                                                        K->I: NO EFFECT ON RECEPTOR ACTIVATION.
R->L: NO BFFECT ON RECEPTOR ACTIVATION
H->L: DECREASE IN RECEPTOR ACTIVATION.
R->L: DECREASE IN RECEPTOR ACTIVATION.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CYTOPLASMIC (POTENTIAL).
N-LINKED (GLCNAC. .) (POTENTIAL).
N-LINKED (GLCNAC. .) (POTENTIAL).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      130; Indels
                                                                              PROSITE; PSO0237; G_PROTEIN_RECEP_F1_1; 1.
PROSITE; PS50262; G_PROTEIN_RECEP_F1_2; 1.
6-protein coupled receptor; Transmembrane; Glycoprotein.
DOMAIN 32 EXTRACELULIAR (POTENTIAL).
                                                                                                                                                                                                                                         CYTOPLASMIC (POTENTIAL).
6 (POTENTIAL).
EXTRACELLULAR (POTENTIAL).
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)I -> PYV (IN REF. 2).
590BBE502E41B3AE CRC64;
                                                                                                                                                        2 (POTENTIAL).
EXTRACELLULAR (POTENTIAL).
                                                                                                                                                                                                                   EXTRACELLULAR (POTENTIAL)
                                                                                                                                                                                3 (POTENTIAL).
CYTOPLASMIC (POTENTIAL).
                                                                                                                                1 (POTENTIAL). CYTOPLASMIC (POTENTIAL).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ; Pred. No. 4.7e-18, 50; Mismatches 13(
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                                                                                                                                                                                                         4 (POTENTIAL).
                                                                                                                                                                                                                                                                                 (POTENTIAL).
                                                                                                                                                                                                                              (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               22.6%; Score 373.5;
                                                                                                                                                                                                                                                                                                                                BY SIMILARITY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PRT;
                              MGD; MGI:105107; P2ry2.
InterPro; IPR000276; GPCR_Rhodpsn.
PF00001; 7tm_1; 1.
PRINTS; PR00237; GPCRRHODOPSN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     093361;
16-OCT-2001 (Rel. 40, Created)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       42174 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            33.5%;
         AAH06613.1;
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183
107
110
262
265
289
292
17
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287
309
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                      P34996; 1DDD
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71
94
           BC006613;
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TRANSMEM
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                                                                                                                                                            TRANSMEM
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                                                                                                                                                 DOMAIN
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                       HSSE;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    4.
                                                                                                                                                                                                                  MOI. Pharmacol. 54:541-546(1998).
-!- FUNCTION: RECEPTOR FOR EXTRACELLULAR UDP> ADP = UTP. THE ACTIVITY
                                                                            Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Archosauria; Aves; Neognathae; Galliformes; Meleagrididae; Meleagris.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    81 NDKGTYGDVLCISNRYVLHTNLYTSILFLTFISMDRYLLMKYPFRE-HFLQKKEFAILIS 139
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       140 LAVWALVTLEVLPMLTFINSVPKEEGSNCIDYASSGNPEHNLIYSLCLTLLGFLIPLSVM 199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      200 CFFYYKMVVFLKRRSQQQATAL--PLDKPQRLVVLAVVIFSILFTPYHIMRNLRIASRLD 257
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Indels 11; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        22 LSAFYAIEFIFGLLGNVTVVFGYLFCMKNWNSSNVYLFNLSISDFAFLCTLPILIKSYA- 80
                                                                                                                                                                                                                                               OF THIS RECEPTOR IS MEDIATED BY G PROTEINS WHICH ACTIVATE A PHOSPHATIDYLINOSITOL-CALCIUM SECOND MESSENGER SYSTEM.
SUBCELLULAR LOCATION: Integral membrane protein.
SIMILARITY: BELONGS TO FAMILY 1 OF G-PROTEIN COUPLED RECEPTORS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                EXTRACELLULAR (POTENTIAL).
N-LINKED (GLCNAC. .) (POTENTIAL).
BY SIMILARITY.
                                                                                                                                                                     Li Q., Olesky M., Palmer R.K., Harden T.K., Nicholas R.A., "Evidence that the p2y3 receptor is the avian homologue of the mammalian P2Y6 receptor.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             22.5%; Score 371.5; DB 1; Length 328; 29.4%; Pred. No. 5.7e-18;
16-OCT-2001 (Rel. 40, Last sequence update)
16-OCT-2001 (Rel. 40, Last annotation update)
P2Y purinoceptor 3 (P2Y3) (Nucleoside diphosphate receptor).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PRINTS; PR00237; GPCKRHODOPSN.
PROSITE; PS00237; G-PROTEIN_RECEP_F1_1; FALSE_NEG.
PROSITE; PS50262; G_PROTEIN_RECEP_F1_2; 1.
G-protein coupled receptor; Transmembrane; Glycoprotein.
DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  EXTRACELLULAR (POTENTIAL).
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EXTRACELLULAR (POTENTIAL).
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5 (POTENTIAL)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         3 (POTENTIAL). CYTOPLASMIC (POTENTIAL).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          29.4%; Pred. NO. ....
tive 61; Mismatches 137;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 (POTENTIAL)
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                                                             Meleagris gallopavo (Common turkey)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  InterPro; IPR000276; GPCR_Rhodpsn.
Pfam; PF00001; 7tm_1; 1.
                                                                                                                                                        MEDLINE=98401046; PubMed=9730913;
                                                                                                                                                                                                                                                                                                                                                                                                                                                       EMBL; AF069555; AAC23863.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               37594 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           87; Conservative
                                                                                                                                      SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             328 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Local Similarity
                                                                                                          NCBI_TaxID=9103;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    211
232
253
253
276
299
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       -!- TISSUE SPECIFICITY: SPLEEN, TESTIS, KIDNÈY, LIVER, LUNG, HEART AND
204 LACYCSMARILCQKDELIGLAVHKKKDKAVRMIIIVVIVFSISFFPFHLTKTIYLIVRSS 263
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Parr C.E., Sullivan D.M., Paradiso A.M., Lazarowski E.R., Burch L.H.,
                                                                                                                                                                                     P41231; Q96EM8;
01-FEB-1995 (Rel. 31, Created)
15-JUN-2002 (Rel. 41, Last sequence update)
15-JUN-2002 (Rel. 41, Last annotation update)
P2Y purinoceptor 2 (P2Y2) (P2U purinoceptor 1) (P2U1) (ATP receptor)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Parr C.E., Sullivan D.M., Paradiso A.M., Lazarowski E.R., Burch L.H., Olsen J.C., Erb L., Weisman G.A., Boucher R.C., Turner J.T.; "Cloning and expression of a human P2U nucleotide receptor, a target
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Olsen J.C., Erb L., Weisman G.A., Boucher R.C., Turner J.T.,
"Cloning and expression of a human P2U nucleotide receptor, a target
for cystic fibrosis pharmacotherapy";
Proc. Natl. Acad. Sci. U.S.A. 91:3275-3279(1994).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        -!- SIMILARITY: BELONGS TO FAMILY 1 OF G-PROTEIN COUPLED RECEPTORS.
                                                                                   264 PTLPCPTLQAFALAYKCTRPFASMNSVLDPILFYFTQRKFRESTRYLLDKMSSKWR 319
                                                  258 SWPQGCTQKAIKSIYTLTRPLAFLNSAINPIFYFLMGDHYRE------MLISKFR 306
                                                                                                                                                                                                                                                                                                                                 Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
                                                                                                                                                                                                                                                                                                                                                 Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       -!- SUBCELLULAR LOCATION: Integral membrane protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              for cystic fibrosis pharmacotherapy.";
Proc. Natl. Acad. Sci. U.S.A. 91:13067-13067(1994).
                                                                                                                                                                              377 AA
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PRINTS; PR00237; GPCRRHODOPSN.
PROSITE; PS00237; G_PROTEIN_RECEP_F1_1; 1.
PROSITE; PS50262; G_PROTEIN_RECEP_F1_2; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                      MEDLINE=94211846; PubMed=8159738;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MEDLINE=95108098; PubMed=7809171;
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TISSUE=Kidney, and Leukocyte;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  EMBL; U07225; AAC04923.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE FROM N.A.
TISSUE=Airway epithelium;
                                                                                                                                                                            STANDARD;
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                                                                                                                                                                                                                                                                                 receptor).
                                                                                                                                                                                                                                                                                                              Homo sapiens (Human).
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HSSP; P34996; 1DDD.
                                                                                                                                                                                                                                                                                                                                                                   NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                              P2RY2 OR P2RU1
                                                                                                                                                                                                                                                                              (Purinergic
                                                                                                                                                                          P2Y2_HUMAN
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Thu Apr

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                                                                                                                                                                                                                                                                                                                                                                                                                                             137 LISLAVWALVTLEVLPMLTFINSVPKEEGSNCIDYASSGNPEHNLIYSLCLTLLGFLIPL 196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           152 RVAGAVWVLVLACQAPVLYFVTTSARGGRVTCHDTSAPELFSRFVAYSSVMLGLLFAVPF 211
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      197 SVMCFFYYKMVVFLKRRSQQQATALPLDKPQRLVVLAVV--IFSILFTPYHIMRNLRIAS 254
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Eukaryota; Métazoa; Chórdata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Rattus.
                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                           19 KY-YLSAFYAIEFIFGLLGNVTVVFGYLFCMKNWNSSNVYLFNLSISDFAFLCTLPILIK 77
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 STRAIN-Sprague-Dawley; TISSUE-Brain; MEDLINE-9441178; pubmed-951165; pubmed-951165; pubmed-951165; Mebb T.E., Henderson D., Roberts J.A., Barnard E.A.; molecular cloning and characterization of the rat P2X4 receptor.";
                                                                                                                                                                                                 CYTOPLASMIC (POTENTIAL).
N-LINKED (GLCNAC. .) (POTENTIAL).
N-LINKED (GLCNAC. .) (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                7;
                                                                                                                                                                                                                                                                                                                       DB 1; Length 377;
                                                                                                                                                                                                                                                    R -> S (IN REF. 3; AAH12104).
E -> G (IN REF. 1).
S -> F (IN REF. 1).
EE557A857A269AC6 CRC64;
                                                                                                                                                                                                                                                                                                                                      33.5%; Pred. No. 2.2e-17;
iive 52; Mismatches 128; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               STRAIN-Sprague Dawley; TISSUE-Liver;
Bogdanov Y.D., Wildman S., King B.F., Burntock G.;
Submitted (AUG-1997) to the EMBL/GenBank/DDBJ databases.
Transmembrane; Glycoprotein. EXTRACELLULAR (POTENTIAL).
                                                                                                                                                                    EXTRACELLULAR (POTENTIAL).
                                                                  EXTRACELLULAR (POTENTIAL).
                                                                                                                       EXTRACELLULAR (POTENTIAL).
                                                                               3 (POTENTIAL).
CYTOPLASMIC (POTENTIAL).
                                       (POTENTIAL).
                                                                                                                                               CYTOPLASMIC (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            255 RLDSWPQGC-TQKAIKSIYTLTRPLAFLNSAINPIFYFLMG 294
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15-JUN-2002 (Rel. 41, Last sequence update)
15-JUN-2002 (Rel. 41, Last annotation update)
P2Y purinoceptor 4 (P2Y4).
                                                                                                         4 (POTENTIAL).
                                                                                                                                 (POTENTIAL)
                                                                                                                                                                                       (POTENTIAL)
                            (POTENTIAL)
                                                       (POTENTIAL)
                                                                                                                                                               (POTENTIAL)
                                                                                                                                                                                                                                                                                                                         22.0%; Score 363.5;
                                                                                                                                                                                                                                             BY SIMILARITY
                                         CYTOPLASMIC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PRT;
                                                                                                                                                                                                                                                                                                42289 MW;
G-protein coupled receptor;
DOMAIN 1 32
                                                                                                                                                                                                                                                                                                                                                      94; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Rattus norvegicus (Rat).
                                                                                                                                                                                                                                                                                                377 AA;
                                                                                                                                                                                                                                                                                                                                        Similarity
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035811;
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CONFLICT
SEQUENCE
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TRANSMEM
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     205 KMVVFLKR---RSQQQATALPLDKPQRLVVLAVVIFSILFTPYHIMRNLRIASRLDSWPQ 261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                18 LMARRLYRPLPGAGGSSSRL---RSLRTIAVVLTVFAVCEVPFHITRTIYYQARL--LQA 272
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          145 LYTLEVLPMLTFINSVPKEEGSNCIDYASSGNPEHNLIYSLCLTLLGFLIPLSVMCFFYY 204
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        85 TYGDVLCISNRYVLHTNLYTSILFLTFISMDRYLLMKYPFREHFLQKKEFAILISLAVWA 144
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               26 YAIEFIFGLLGNVTVVFGYLFCMKNWNSSNVYLFNLSISDFAFLCTLPILIKSY-ANDKG 84
J. Neurochem. 71:1424-1434(1998).

-i- FUNCTION: Receptor for ATP and UTP coupled to G-proteins that activate a phosphatidylinositol-calcium second messenger system.

Not activated Dy ADP or UDP.

-i- SUBCELLULAR LOCATION: Integral membrane protein.

-i- TISSUE SPECIFICITY: Widely expressed at low levels. In brain, higher expression in the pineal gland and ventricular system.

-i- SIMILARITY: BELONGS TO FAMILY 1 OF G-PROTEIN COUPLED RECEPTORS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           BY SIMILARITY.
N-LINKED (GLCNAC. .) (POTENTIAL).
0377F96E54B449A3 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length 361;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    21.5%; Score 354; DB 1; Length 361
30.6%; Pred. No. 8.7e-17;
ive 60; Mismatches 125; Indels
                                                                                                                                                                                                                                                                                                                   InterPro; irnv: 1: 1. Pram PF00001; 7tm 1: 1. PRINTS; PR00237; GPCRRHODOPSN. PR0SITE; PS00237; G_PROFEIN_RECEP_F1_1; 1. PROSITE; PS50262; G_PROFEIN_RECEP_F1_2; 1. G-profein coupled receptor; Transmembrane; Glycoprotein. BXTRACELLUIAR (POTENTIAL).
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5 (POTENTIAL).
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7 (POTENTIAL)
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CYTOPLASMIC (POTENTIAL).
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CYTOPLASMIC (POTENTIAL).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             262 GC-TQKAIKSIYTLTRPLAFLNSAINPIFYFLMGDHYREML 301
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                                                                                                                                                                                                                                                                                                               InterPro; IPR000276; GPCR_Rhodpsn.
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                                                                                                                                                                                                                                                                  EMBL; Y14705; CAA75007.1; -.
                                                                                                                                                                                                                                                                                  EMBL, Y11433; CAA72241.1; -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         86; Conservative
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68
91
108
127
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305
361
181
175
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Best Local Similarity
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Faure S., Meyer L., Costagliola D., Vaneensberghe C., Genin E.,
Autran B., Delfraissy J.-F., McDermott D.H., Murphy P.M., Debre P.,
Theodorou I., Combadiere C.,
Rapid progression to AIDS in HIV+ individuals with a structural
variant of the chemokine receptor CX3CR1.";
Science 287:2274-2277(2000).
--- FUNCTION: RECEPTOR FOR THE CX3C CHEMOKINE FRACTALKINE AND MEDIATES
BOTH ITS ADHESIVE AND MIGRATORY FUNCTIONS. ACTS AS CO-RECEPTOR
WITH CD4 FOR HIV-1 VIRUS ENVELODE PROPEIN (IN VITRO).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CHARACTERIZATION.

WEDLINES-98050327; PubMed-9390561;

MEDLINES-980503027; PubMed-9390561;

MEDLINES STATES                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Raport C.J., Schweickart V.L., Eddy R.L. Jr., Shows T.B., Gray P.W.; "The orphan G-protein-coupled receptor-encoding gene V28 is closely related to genes for chemokine receptors and is expressed in lymphoid
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TISSUE SPECIFICITY: EXPRESSED IN LYMPHOID AND NEURAL TISSUES.
DISEABE: INCREASED SUSCEPTIBILITY TO HIV INFECTION AND RADID
PROGRESSION TO AIDS ARE ASSOCIATED WITH THE 1-249/M-280 HAPLOTYPE.
SIMILARITY: BELONGS TO FAMILY 1 OF G-PROTEIN COUPLED RECEPTORS.
                           01-FEB-1996 (Rel. 33, Created)
01-FEB-1996 (Rel. 33, Last sequence update)
16-OCT-2001 (Rel. 40, Last annotation update)
CX3C chemoXine receptor 1 (C-X3-CKR-1) (CX3CR1) (FractalKine
receptor) (GPR13) (V28) (Beta chemoXine receptor-like 1) (CMK-BRL-1)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               "Identification of CX3CR1. A chemotactic receptor for the human CX3C chemokine fractalkine and a fusion coreceptor for HIV-1.";
J. Biol. Chem. 273:23799-23804(1998).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Combadiere C., Salzwedel K., Smith E.D., Tiffany H.L., Berger E.A.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MEDLINE=95374679: PubMed=7646814; Combadiere C., Ahuja S.K., Murphy P.M.; Combadiere C., Ahuja S.K., Murphy P.M.; "Cloning, chromosomal localization, and RNA expression of a human beta chemokine receptor-like gene."; DNA Cell Biol. 14:673-680(1995).
                                                                                                                                                                                                                                                              Homo sapiens (Human).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CX3CR1, which mediates both leukocyte migration and adhesion."; Cell 91:521-530(1997).
                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE FROM N.A.
MEDLINE=96011651; PubMed=7590284;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MEDLINE=98395093; PubMed=9726990;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gene 163:295-299(1995).
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                                                                                                                                                                                                                                                                                                                                                                       NCBI_TaxID=9606;
                                                                                                                                                                                                                                      CX3CR1 OR GPR13
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Genew; HGNC:2558; CX3CR1.

MIM; 601470; -.

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V -> I (COMMON POLYMORPHISM IN CAUCASIAN POPULATION).
                                                                                                                                                                                                                                                                                                                                                                            T -> M (COMMON POLYMORPHISM IN CAUCASIAN POPULATION).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                88 THYLINEKGLH-NAMCKFTTAFFFIGFFGSIFFITVISIDRYLAIVLAANSMNNRTVQHG 146
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           136 ILISLAVWALVTLEVLPMLTFINSVPKEEGSNCI-DYASSGNPEHNLIYSLCLTLLGFLI 194
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  147 VTISLGVWAAAILVAAPQFMF----TKQKENECLGDYPEVLQEIWPVLRNVETNFLGFLL 202
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             195 PLSVMCFFYYKMV-VFLKRRSQQQATALPLDKPQRLVVLAVVIFSILFTPYHIMRNLRIA 253
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tive 66; Mismatches 133; Indels 16; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         16 ILNKYYLSAFYAIEFIFGLLGNVTVVFGYLFCMKNWNSSNVYLFNLSISDFAFLCTLPIL 75
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                254 SRLDSWPQGCTQKAIKSIYTLTRPLAFLNSAINPIFYFLMGDHYREMLISKFRQYFKSL 312
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             01-0CT-1996 (Rel. 34, Created)
01-0CT-1996 (Rel. 34, Last sequence update)
15-JUN-2002 (Rel. 41, Last annotation update)
P2Y purinoceptor 4 (P2Y4) (Uridine nucleotide receptor) (UNR) (P2P).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                         21.4%; Score 353; DB 1; Length 355; 28.1%; Pred. No. 1e-16;
            Pfam; PF00001; 7tm_1; 1.

PRINTS; PR00237; GPCRRHODDPSN.

PROSITE; PS00237; G_PROTEIN_RECEP_F1_1; 1.

PROSITE; PS50262; G_PROTEIN_RECEP_F1_2; 1.

G-protein coupled receptor; Transmembrane; Polymorphism.
                                                                           EXTRACELLULAR (POTENTIAL).
                                                                                                                                                                                                                   6 (POTENTIAL).
EXTRACELLULAR (POTENTIAL).
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                                                                                          (POTENTIAL).
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IPR000276; GPCR_Rhodpsn.
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P51582;
  InterPro;
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                                                                                                                                                                                                                                                   Stam N.J., Klomp J., van der Heuvel M., Olijve W.; "Molecular cloning and characterization of a novel orphan receptor (P2P) expressed in human pancreas that shows high structural homology
                                                                                                                                                                                                                                                                                                     to the P2U purinoceptor.";
FEBS Lett. 384:260-264(1996).
--- FUNCTION: Receptor for UTP and UDP coupled to G-proteins that
activate a phosphatidylinositol-calcium second messenger system.
                                                                                                                                                                                                                                                                                                                                                                                        -i- TISSUE SPECIFICITY: Pancreas.
      MEDLINE-96125055; PubMed-8537336; Communi D., Pirotton S., Parmentier M., Boeynaems J.-M.; "Cloning and functional expression of a human uridine nucleotide
                                                                                                         MEDLINE-96125054; PubMed-8537335; Marchese A., Heng H.H.Q., Nguyen T., Erb L., Welsman G.A., Marchese A., Heng H.H.Q., Garrad R.C., George S.R., Turner J.T., O'Dowd B.F.; "Cloning, expression, and chromosomal localization of the human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MIM; JOUUSO;
InterPro; IPR000276; GPCR_Rhodpsn.
Pfan; PF00001; 7tm_1; 1.
PRINTS; PR00237; G_PROTEIN_RECEP_F1_1; 1.
PROSITE; PS00237; G_PROTEIN_RECEP_F1_2; 1.
G-protein coupled receptor; Transmembrane; Polymorphism.
OMBAIN 1 34
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P -> L (IN DBSNP:1152188).
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CYTOPLASMIC (POTENTIAL).
4 (POTENTIAL).
EXTRACELLUIAR (POTENTIAL).
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EXTRACELLULAR (POTENTIAL)
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/FTId=VAR_011854.
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EXTRACELLULAR (POTENTIAL)
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CYTOPLASMIC (POTENTIAL).
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J. Biol. Chem. 270:30845-30848(1995).
                                                                 Biol. Chem. 270:30849-30852(1995).
                                                                                                                                                                                                                                 IISSUE-Pancreas;
MEDLINE-96197801; PubMed-8617367;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            EMBL; X91852; CAA62963.1; -. EMBL; U40223; AAC50347.1; -. EMBL; X96597; CAA65415.1; -. HSSP; P34996; IDDD
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185
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81 NDKGTYGDVLCISNRYVLHTNLYTSILFLTFISMDRYLLMKYPFREHFLQKKEFAILISL 140
                                                                                                                                                                                                  141 AVWALVTLEVLPMLTFINSVPKEEGSNCIDYASSGNPEHNLIYSLCLTLLGFLIPLSVMC 200
                                                                                                                                                                                                                                                                                158 AVWLVVAGCLVPNLFFVTTSNKGTTVLCHDTTRPEEFDHYVHFSSAVMGLLFGVPCLVTL 217
                                                                                                                                                                                                                                                                                                                   201 FFYYKMVVFLKRR-----SQQQATALPLDKPQRLVVLAVVIFSILFTPYHIMRNLRIA 253
                                                                                                                                                                                                                                                                                                                                       218 VCYGLMA----RRLYQPLPGSAQSSSRL---RSLRIIAVVLTVFAVCFVPFHITRTIYYL 270
                                                                               Gaps
                                                                                                             22 LSAFYAIEFIFGLLGNVTVVFGYLFCMKNWNSSNVYLFNLSISDFAFLCTLPILIKSY-A 80
                                                                                                                                  18;
                                                 Length 365;
                                                                                                                                                                                                                                                                                                                                                                                       254 SRLDSWPQGC-TQKAIKSIYTLTRPLAFLNSAINPIFYFLMGDHYREML 301
                                                                                                                                                                                                                                                                                                                                                                                                        :|| : :| :|| || || || 271 ARL--LEADCRVLNIVNVYKVTRPLASANSCLDPVLXLLTGDKYRRQL 317
                                                                               122; Indels
S -> A (IN REF. 2).
; 23EOAFED3B7BDEED CRC64;
                                               Score 352; DB 1;
Pred. No. 1.2e-16;
                                                               31.1%; Pred. ....
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   234 234 S
365 AA; 40963 MW;
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                     SEQUENCE
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       CONFLICT
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1555.165 Million cell updates/sec
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GenCore version 5.1.3
Copyright (c) 1993 - 2003 Compugen Ltd.
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Listing first 45 summaries
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1650
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

sp\_unclassified: \*

sp\_archeap:\*

sp\_vertebrate:\* sp\_rvirus:\*
sp\_bacteriap:\*

9: 10: 11: 12: 13: 14: 16: 16:

sp\_rodent:\* sp\_plant:\* sp\_virus:\*

sp\_human:\*
sp\_invertebrate:\*
sp\_mammal:\*

sp\_organelle:\* sp\_phage:\*

sp\_mhc:\*

## SUMMARIES

Wittenberger T., Schaller H.C., Hellebrand S.;
"An expressed sequence tag (est) data mining strategy succeeding in the discovery of new g-protein coupled receptors.";
J. Mol. Biol. 307:799-813(2001).
BMBL, AR593367; AAK01867.1; -.
HSSP; P34996; 1DDD.

MEDLINE=21172992; PubMed=11273702;

SEQUENCE FROM N.A. NCBI\_TaxID=10090;

STRAIN=C57BL;

Description	COOme and Adopto	Oghvaf homo ganien	O8+da8 homo sapien	Ogusta mono sapten	Ogdons rais oring	Ogénés homo canion	OS7466 molecularia	Ogrhp3 carris g	Oborko mus museulu	Obmys allithmin	ASMIN CALLICILLY OBITAR rattue norm	Ogmy-9 raced 1101 v	Comply of yelling ages	COTENA TALLUS HOLV	OBEDZE MUS MUSCUIU	Q951h1 macaca fasc	Q91vp9 mus musculu
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99.0%; Score 1634; DB 11; 99.1%; Pred. No. 5.8e-138; 1; Mismatches

Matches 314; Conservative Query Match Best Local Similarity

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317 AA; 36701 MW; 4E22F0608F928E36 CRC64;

Receptor. SEQUENCE

MSD; MSI:1994135; Gpr91.
InterPro; IPR000276; GPCR\_Rhodpsn.
Pfam; PF00001; 7tm.1; 1.
PRINTS; PR00237; GPCRRHODOPSN.
PROSITE; PS00237; G\_PROTEIN\_RECEP\_F1\_1; UNKNOWN\_1.
PROSITE; PS50262; G\_PROTEIN\_RECEP\_F1\_2; 1.

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DŢ	01-DEC-2001	(TremBLrel	Lrel. 1			
DE	G-protein coupled receptor	peldno	recepto	·		
GN	GPR91.					
OS	Mus musculus (Mouse)	snow) si	e).			
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IL J. MOL. BIOL. 307:799-813(2001)

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IL STMILARITY: BELONGS TO FAMILY 1 OF G-PROTEIN COUPLED RECEPTORS.

IN STATEMENT ARK29080.1;

IN STATEMENT TY. BELONGS TO FAMILY 1 OF G-PROTEIN COUPLED RECEPTORS.

REMEL, FATS48078; ARK29080.1;

IN TREPPO, IPRO00276; GPCR_Rhodpsn.

RICHARD FROM TO STATEMENT FROM TO STATEMENT FROM THE PROSTIE; PSO00237; GPROTEIN_RECEP_FI_1; 1.

PROSTIE; PSO00237; GPROTEIN_RECEP_FI_2; 1.

RECEPTOR: A GPROTEIN_RECEP_FI_2; 1.

RECORDER GOUPLE GOUPLE GOUPLE GOUPLED FROM THE PROSTIE; PSO00262 G_PROTEIN_RECEP_FI_2; 1.

RECORDER GOUPLE STATEMENT FROM THE PROSTIES FROM THE PROSTIES FROM THE PROSTIES FROM THE PROSTIES FROM THE PROSTIES FROM THE PROSTIES FROM THE PROSTIES FROM THE PROSTIES FROM THE PROSTIES FROM THE PROSTIES FROM THE PROSTIES FROM THE PROSTIES FROM THE PROSTIES FROM THE PROSTIES FROM THE PROSTIES FROM THE PROSTIES FROM THE PROSTIES FROM THE PROSTIES FROM THE PROSTIES FROM THE PROSTIES FROM THE PROSTIES FROM THE PROSTIES FROM THE PROSTIES FROM THE PROSTIES FROM THE PROSTIES FROM THE PROSTIES FROM THE PROSTIES FROM THE PROSTIES FROM THE PROSTIES FROM THE PROSTIES FROM THE PROSTIES FROM THE PROSTIES FROM THE PROSTIES FROM THE PROSTIES FROM THE PROSTIES FROM THE PROSTIES FROM THE PROSTIES FROM THE PROSTIES FROM THE PROSTIES FROM THE PROSTIES FROM THE PROSTIES FROM THE PROSTIES FROM THE PROSTIES FROM THE PROSTIES FROM THE PROSTIES FROM THE PROSTIES FROM THE PROSTIES FROM THE PROSTIES FROM THE PROSTIES FROM THE PROSTIES FROM THE PROSTIES FROM THE PROSTIES FROM THE PROSTIES FROM THE PROSTIES FROM THE PROSTIES FROM THE PROSTIES FROM THE PROSTIES FROM THE PROSTIES FROM THE PROSTIES FROM THE PROSTIES FROM THE PROSTIES FROM THE PROSTIES FROM THE PROSTIES FROM THE P
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Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo
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Amphibia; Batrachia; Anura; Mesobatrachia; Pipoidea; Pipidae;
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Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
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01-JUN-2002 (TrEMBLrel. 21,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Matches 228; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  305 MLMNQLRHNFKSLTSF 320
                                                                                                                                                                                                                                                                            301 MLMNQLRHNFKSLTSF 316
                                                                                                                                                                                                            300 MLISKFRQYFKSLTSF 315
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Xenopodinae; Xenopus.
NCBI_TaxID=8355;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Homo sapiens (Human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         P2Y purinoceptor 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      090X57
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Q90X57
                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT
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                                                                                                                                                                                                                                                                                                                                                                               115 DRYLLMKYPFREHFLOKKEFAILISLAVWALVTLEVLPMLTFINS-VPKEEGSNCIDYAS 173
                                                                                                                                                                                                                                                                                                                                                                                                                                                       136 HRYTGVVHPLKSLGRLKKKNSIYISALVWFIVIAGISPILFFSGTGIRKNKTITCFDTSS 195
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    174 SGNPEHNLIYSLCLTLLGFLIPLSVMCFFYYKMVVFLKRRSQQQATALPLDKPQ-RLVVL 232
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           233 AVVIFSILFTPYHIMRNLRIASRLD-SWPQGCT-QKAIKSIYTLTRPLAFLNSAINPIFY 290
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                58; Mismatches 124; Indels 15; Gaps
                                                                                                                                                                                                                                                                                   1 MAQNLSCENWLATEAILNK----YYLSAFYAIEFIFGLLGNVTVVFGYLFCMKNWNSSN 55
                                                                                                                                                                                                                                                                                                           Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Chondrichthyes; Blasmobranchli; Squalea; Hypnosqualea; Pristiorajea; Batoidea; Rajiformes; Rajidae; Raja
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         196 DEYLRSYFIYSMCTTVFGFCIPFILIGGYGLIYRALIYKDMNA---PLRKKSIYLVII
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MEDLINE-2045151; PubMed-10900200; Dranoff J.A., O'Neill A.F., Franco A.M., Cai S.Y., Connolly G.C., Ballatori N., Boyer J.L., Nathanson M.H.; A prinitive ATP receptor from the little skate Raja erinacea."; J. Biol. Chem. 275:30701-30706(2000). Hitle skate Raja erinacea."; Farbi, Ast42880; As642684.1; -. HSSP; P34996; IDDD. InterPro; IPR000276; GPCR.Rhodpsn. Prinits, PR00237; GPCRRHODOSN. PRINITS; PR00237; GPCRRHODOSN. PROSITE, PS00237; GPCRRHODOSN. PROSITE; PS500237; GPCRFRINIRGEE-FILI; UNKNOWN_1.
                                                                                                                                                                                                               29.2%; Score 482.5; DB 13; Length 361; 36.7%; Pred. No. 4e-35;
       DEVOLUTE FROM N. A. S. Chondon A. N. T. T. S. Chondon Of Xenopus P2Y1 Receptor.";
"Cloning of Xenopus P2Y1 Receptor.";
Submitted (OCT-2001) to the EMBL/GenBank/DDBJ databases.
BMBL, A4432354; AAL27614.1;
InterPro; IPR000276; GPCR_Rhodpsn.
Pfam; PF00001; 7tm_1; 1.
PROSITE; PS50262; G_PROTEIN_RECEP_F1_1; UNKNOWN_1.
                                                                                                                                                                         SEQUENCE 361 AA; 41002 MW; E5B2D605F5B57FED CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     357 AA; 41239 MW; 14604EE15DCBDB41 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                01-MAR-2001 (TrEMBLrel. 16, Last sequence update)
01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 357 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            01-MAR-2001 (TrEMBLrel. 16, Created)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PRT;
                                                                                                                                                                                                                                Best Local Similarity 36.79
Matches 114; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   291 FLMGDHYREML 301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   313 FLAGDTFRRKL 323
SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE FROM N.A.
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                                                                                                                                                          Receptor.
                                                                                                                                                                                                                 Query Match
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SEQUENCE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Q9DE05
RA RA DR DR DR DR CKW
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27.9%; Score 461; DB 13; Length 357;

Query Match

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                                                                                                                               73 PILIKSYANDKG-TYGDVLCISNRYVLHTNLYTSILFLTFISMDRYLLMKYPFREHFLQK 131
                                                                                                                                                        132 KEFAILISLAVWALVTLEVLPMLTFINS-VPKEEGSNCIDYASSGNPEHNLIYSLCLTLL 190
                                                                                                                                                                                                                                  149 KKSATIVCVCVWITVMAGISPILYFSRTGLRRNKTNTCYDTTSKELLETYFIYSMSTTFF 208
                                                                                                                                                                                                                                                                                         191 GFLIPLS--VMCF-FYYKMVVFLKRRSQQQATALPLDKPQRLVVLAVVIFSILFTPYHIM 247
                                                                                                                                                                                                                                                                                                                                     248 RNLRIASRLDSWPQG---CT-QKAIKSIYTLTRPLAFLNSAINPIFYFLMGDHYREMLIS 303
                                     28; Gaps
                                                                 17 LNK----YYLSAFYAIEFIFGLLGNVTVVFGYLFCMKNWNSSNVYLFNLSISDFAFLCTL 72
                                                                                               29 LNKGFQFYYLPIMYIIVFVTGFIGNSVALWMFIFHMRPWSSITIYMFNLVLADLFYVFSL 88
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          77 KSYAN-DKGTYGDVLCISNRYVLHTNLYTSILFLTFISMDRYLLMKYPFREHFLQKKEFA 135
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            10; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         17 LNKYYLSAFYAIEFIFGLLGNVTVVFGYLFCMKNWNSSNVYLFNLSISDFAFLCTLPILI 76
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE FROM N.A.

MEDLINE=21458557; PubMed=11574155;
Lee D.K., Nguyen T., Lynch K.R., Cheng R., Vanti W.B., Arkhitko O.,
Lewis T., Evans J.E., George S.R., O'bowd B.F.;

"Discovery and mapping of ten novel G protein-coupled receptor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Takeda S., Kadowaki S., Haga T., Takaesu H., Mitaku S.;
"Identification of G protein-coupled receptor genes from the human
genome sequence.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Eukaryota, Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               G protein-coupled receptor (Putative G-protein coupled receptor).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         25.8%; Score 426; DB 4; Length 337; 34.4%; Pred. No. 4.1e-30;
                 Pred. No. 3.3e-33;
4; Mismatches 112; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           57; Mismatches 126; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Submitted (APR-2002) to the EMBL/GenBank/DDBJ databases.
EMBL: AF411109; AAL26480.1; -.
EMBL: AR083598; BAB89311.1; -.
InterPro; IPR00276; GPCR_Rhodpsn.
Pfam: PF00001; 7tm_1; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       337 AA; 38251 MW; 6814EA0044756CE6 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              01-DEC-2001 (TrEMBLrel. 19, Created)
01-DEC-2001 (TrEMBLrel. 19, Last sequence update)
01-JUN-2002 (TrEMBLrel. 21, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               337 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Pfam; PF00001; 7tm_1; 1.
PROSITE; PS50262; G_PROTEIN_RECEP_F1_2; 1.
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35.0%; Pie..
                               Matches 110; Conservative
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Matches 101; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                        304 KFRQYFKSLTSFRT 317
                                                                                                                                                                                                                                                                                                                                                                                                                                        316 -- RRFTNAASRFMT 327
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                   Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Homo sapiens (Human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Receptor.
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                                                                   δλ
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     200 FDHYVHYSSSIMALLFGIPFLVIVVCYCLMAKRLCKRS-----FPSPSPRVPSYKKRSI 253
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             228 RLVVLAVVIFSILFTPYHIMRNLRIASRLDSWPQGC-TQKAIKSIYTLTRPLAFLNSAIN 286
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   254 KMIIIVLTVFAICFVPFHITRTLYTSRY--FQADCQTLNIINFTYKITRPLASINSCLD 311
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LENLSISDFAFLCTLPILIKSYAN-DKGTYGDVLCISNRYVLHTNLYTSILFLTFISMDR 116
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              91 HYYASGENWIFGDFMCKFIRFSFHFNLYSSILFLTCFSIFRYCVIIHPMSCFSIHKTRCA 150
                                                                                                                                        151 VVACAVVWIISLVAVIPMTELITSTNRTNRSACLDLTSS--DELNTIKWYNLILTATTFC 208
                                                                                                                                                                                                                   194 IPLSVMCFFYYKMVVFLKRRSQQQATALPLDKPQRLVVLAVVIFSILFTPYHIMRNLRIA 253
                                                                                                                                                                                                                                                                                    209 LPLVIVTLCYTTIIHTLTHGLQTDSCL--KQKARRLTILLLLAFYVCFLPFHILRVIRIE 266
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Meleagris gallopavo (Common turkey).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Archosauria; Aves; Neognathae; Galliformes; Meleagrididae; Meleagris.
                                                                           136 ILISLAVWALVTLEVLPMLTFINSVPKEEGSNCIDYASSGNPEHNLI--YSLCLTLLGFL 193
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         20 WLGGNTTAAAEAKCVFNEEFKFILLPISYGIVFVVGLPLNSWAMWIFVSRWRPWNATTTY 79
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     10 WL----ATEA--ILNKYY----LSAFYAIEFIFGLLGNVTVVFGYLFCMKNWNSSNVY 57
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MEDIINE-98086419; PubMed-9415702;
Boyer J.L., Waldo G.L., Harden T.K.;
"Molecular cloning and expression of an avian G protein-coupled P2Y
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    177 PEHNLIYSLCLTLLGFLIPLSVMCFFYYKMVVFLKRRSQQQATALPLDKPQ-----
                                                                                                                                                                                                                                                                                                                                                                   SRLDSWPQGCT-QKAIKSIYTLTRPLAFLNSAINPIFYFLMGDHYREMLISKFR 306
                                                                                                                                                                                                                                                                                                                                                                                                             267 SRLLS--ISCSIENQIHEAYIVSRPLAALNTFGNLLLYVVVSDNFQQAVCSTVR 318
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     25.6%; Score 422.5; DB 13; Length 374; 33.7%; Pred. No. 9.4e-30; Live 59; Mismatches 119; Indels 31;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     374 AA; 42594 MW; 849C465722BDD02B CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             01-JUN-1998 (TrEMBLrel. 06, Created)
01-JUN-1998 (TrEMBLrel. 06, Last sequence update)
01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
G protein coupled P2Y nucleotide receptor.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        INSST, IPRODOZT6; GPCR_Rhodpsn.
Interpro; IPRODOZT6; GPCR_Rhodpsn.
Pfam: PF00101; 7tm_1: 1.
PRINTS; PRODOZT; GPCRHUDOPSN.
PROSITE; PS00237; G_PROTEIN_RECEP_F1_1; UNKNOWN_1.
PROSITE; PS50262; G_PROTEIN_RECEP_F1_2; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         374 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MOI. Pharmacol. 52:928-934(1997).
EMBL; AF031897; AAC60339.1; -.
HSSP; P34996; 1DDD.
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Matches 106; Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE FROM N.A.
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200 CFFYYKMVVFLKRRSQQQATALPLDKPQRLVVLAVVIFSILFTPYHIMRNLRIASRLDSW 259
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           140 LAVWALVILEVLPMLTFINSVPKEEGSNCIDYASSGNPEHNLIYSLCITILGFLIPLSVM 199
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                                                                                                                                                                                                                              Depling L.A., Sabroe I., Andrew D.P., Mitchell T.J., Li Y.,
Hodge M.R., Williams T.J., Pease J.E.;
Hodge M.R., Williams T.J., Pease J.E.;
Hodge M.R., Williams T.J., Pease J.E.;
The identification, characterization and distribution of guinea pig
CCR4 and epitope mapping of a blocking antthody.";
Submitted (OCT-2001) to the EMBL/GenBank/DDBJ databases.
EMBL, AR43191, AAL57488.1;
EMBL, AR43191, AAL57488.1;
PINTEP.O. IPRO00275; GPRCRHOOPSN.
PROSITE; PSO0027; GPRCRHOOPSN.
PROSITE; PSO0257; GPRCRHOOPSN.
PROSITE; PSO0262; G_PROTEIN_RECEP_FI_1; UNKNOWN_1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  21 YLSAFYAIEFIFGLLGNVTVVFGYLFCMKNWNS-SNVYLFNLSISDFAFLCTLPILIKSY 79
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sciurognathi; Muridae; Murinae; Mus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Eukaryota, Metazoa; Chordata, Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Musinae; Mus
                                                                                                                              Cavia porcellus (Guinea pig).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostom1;
Mammalia; Eutheria; Rodentia; Hystricognathi; Caviidae; Cavia
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  STRAIN=129/SVEV;
MEDLINE=21160052; PubMed=11259526;
Lazarowski E.R., Rochelle L.G., O'Neal W.K., Ribeiro C.M.P.,
Grubb B.R., Zhang V., Harden T.K., Boucher R.C.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length 361;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               21.4%; Score 353; DB 11; Length 3 30.0%; Pred. No. 1.5e-23; Live 62; Mismatches 131; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  260 PQGCTQKAIKSIYTLTRPLAFLNSAINPIFYFLMGDHYREMLISKFR 306
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       361 AA; 41064 MW; 9304E897D4FD6839 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                01-WAR-2001 (TrEMBLrel. 16, Last sequence update) 01-JUN-2002 (TrEMBLrel. 21, Last annotation update) P216 receptor (Hypothetical 36.7 kDa protein).
                                                               01-WAR-2002 (TrEMBLrel. 20, Created)
01-WAR-2002 (TrEMBLrel. 20, Last sequence update)
01-JUN-2002 (TrEMBLrel. 21, Last annotation update)
                             361 AA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        86; Conservative
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                                                                                                                    CC-chemokine receptor 4.
                               PRELIMINARY;
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                                                                                                                                                                                         NCBI_TaxID=10141;
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SEQUENCE
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                                                   08VHP3;
                             Q8VHP3
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RESULT 8
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                  08VHP3
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      89 GDHWPFGDLACRFVRFLFYANLHGSILFLTCISFQRYLGICHPLASWHKRGGRRAAWVVC 148
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                140 LAVWALVTLEVLPMLTFINSVPKEEGSNCIDYASSGNPEHNLIYSLCLTLLGFLIPLSVM 199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Platyrrhini; Callitrichidae; Callithrix.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     149 GVVWLAVTAQCLPTAVFAATGIQRNRTVCYDLSPPILSTRYLPYGMALTVIGFLLPFIAL 208
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         200 CFFYYKMVVFLKRRSQQQATALPL----DKPQRLVVLAVVIFSILFTPYHIMRNLRIAS 254
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       209 LACYCRMA---RRLCRQDGPAGPVAQERRSKAARMAVVVAAVFAISFLPFHITKTAYLAV 265
                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                         22 LSAFYAIEFIFGLLGNVTVVFGYLFCMKNWNSSNVYLFNLSISDFAFLCTLPILIKSYA- 80
                                                                                                                                                                                                                                                                                                                                                                                                                                                             29 LTPVYSVVLVVGLPLNICVIAQICASRRTLTRSAVYTLNLALADLMYACSLPLLIYNYAR 88
"Cloning and functional characterization of two murine uridine nucleotide receptors reveal a potential target for correcting ion transport deficiency in cystic fibrosis gallbladder.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Liang M., Rosser M.P., Ng H.P., May K., Bauman J.G., Islam I., Ghannam A., Kretschmer P.J., Pu H., Dunning L., Snider R.M., Morrissey M.M., Hesselgesser J., Perez H.D., Horuk R.; Species selectivity of a small molecule antagonist for the CCRI
                                                                                                                                                                                                                                                                                                                                                                                               10;
                                                                                                                                                                                                                                                                                                                                              ch 20.5%; Score 338; DB 11; Length 328; 1 Similarity 29.6%; Pred. No. 2.9e-22; 84; Conservative 54; Mismatches 136; Indels 1
                                                                                                                               Submitted (APR-2002) to the EMBL/GenBank/DDBJ databases.
EMBL; AF298899; AAG24619.1; -.
EMBL; BC027331; AAH27331.1; -.
                                                                                                                                                                                                                                                                  PROSITE; PS50262; G_PROTEIN_RECEP_F1_2; 1.
Hypothetical protein; Receptor.
SEQUENCE 328 AA; 36721 MW; 00F9DF5ADADF903E CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      255 RLDSWPQGCTQKAIKSIYTLTRPLAFLNSAINPIFYFLMGDHYR 298
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            355 AA; 40928 MW; 2B01C47E9874A2C1 CRC64;
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01-0CT-2000 (TrEMBLrel. 15, Last sequence update)
01-JUN-2001 (TrEMBLrel. 17, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          EMBL; AF127528; AAF36453.1; -...
Interpro; IRR000276; GPCR_Rhodpsn.
Pfam; PF00001; 7tm.1; 1.
PRINTS; PR00237; GPCRRHODOPSN.
PROSITE; PS00237; G_PROTEIN_RECEP_F1_1; UNKNOWN_1.
PROSITE; PS50262; G_PROTEIN_RECEP_F1_2; 1.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          chemokine receptor.\vec{r}; Eur. J. Pharmacol. 389:41-49(2000).
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                                                                                                                                                                                                         InterPro; IPR000276; GPCR_Rhodpsn. Pfam; PF00001; 7tm_1; 1. PRINTS; PR00237; GPCRRHODOPSN.
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                                                                                            SEQUENCE FROM N.A.
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                                                                                                                  Strausberg R.;
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SEQUENCE
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                                                                                                                                   72 LPILIKSYANDKGTYGDVLC--ISNRYVLHINLYTSILFLTFISMDRYLLMKYPFREHFL 129
                                                                                                                                                       130 OKKEFAILISLAVWALVTLEVLPMLTFINSVPKEEGSNC-IDYASSGNPEHNLIYSLCLT 188
                                                                                                                                                                                                                                145 RTVTFGVITSIIIWVLAILASLPGLYFAKTQWEITHRTCSLHFPHESROEWKLFOALKLN 204
                                                                                                                                                                                                                                                                                                 189 LLGFLIPLSVMCFFYYKMVVFLKRRSQQQATALPLDKPQRLVVLAVVIFSILFTPYHIMR 248
                                                                                                                                                                                                                                                                                                                                                                  Rattus norvegicus (Rat).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Rattus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MEDLINE-20555330; PubMed-11091494;
Waller A., Nayee P., Czaplewski L.G.;
"Identification and characterization of a rat macrophage inflammatory
                                     Gaps
                                                                                                                                                                                                                                                                                                                                              249 NLRIASRLDSWPQGCTQ-KAIKSIYTLTRPLAFLNSAINPIFYFLMGDHYREMLISKFRQ 307
                                                                  12 ATEALLNKYYLSAFYAIEFIFGLLGNVTVVFGYLFCMKNWNSSNVYLFNLSISDFAFLCT 71
                                                                                                 27 ANERAFGAKLLPPLYSLVFVIGLVGNILVVVVLVQYKRLKNMTSIYLLNLAISDLLFLFT 86
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              82 DKGTYGDVLC--ISNRYVLHTNLYTSILFLTFISMDRYLLMKYPFREHFLQKKEFAILIS 139
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    97 DNWVFGDAMCKLLSGFYYL--GLYSEIFFIILLTIDRYLAIVHAVFSLRARTVTFGIITS 154
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   140 LAVWALVTLEVLPMLTFINSVPKEEGSNCIDYASSGNPEHNL----IYSLCLTLLGFLI 194
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              24; Gaps
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                                     16;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length 355;
   Length 355;
                                     Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       20.2%; Score 333; DB 11; Length 3 28.6%; Pred. No. 8.7e-22; tive 69; Mismatches 119; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      355 AA; 40838 MW; 2FEB8661D1E6E075 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         protein.1 alpha receptor.";

"Hematother. Stem Cell Res. 9:703-710(2000).

EMBL, AFI19381, AAR34340.1;

InterPro: IPR00276, GPCR_Rhodpsn.

Pfam: PF00001; 7tm_1; 1.

PRINTS; PR00237; GPCRRHODOPSN.

PROSITE: PS00237; GPCRHODOPSN.

PROSITE: PS00262; G_PROTEIN_RECEP_FI_1; UNKNOWN_1.
ch 20.3%; Score 335; DB 6; L. Similarity 28.1%; Pred. No. 5.8e-22; 85; Conservative 63; Mismatches 138;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1-OCT-2000 (TrEMBLrel. 15, Created)
1-OCT-2000 (TrEMBLrel. 15, Last sequence update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Macrophage inflammatory protein-1 alpha receptor.
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-:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        01-DEC-2001 (TrEMBLrel. 19,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         85; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PRELIMINARY;
                  Best Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NCBI_TaxID=10116;
                                                                                                                                                                                                                                                                                                                                                                                                                 308 YF 309
                                                                                                                                                                                                                                                                                                                                                                                                                                                 315 LF 316
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         01-OCT-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 STRAIN-CD;
 Query Match
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                                Matches
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Receptor.
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SEQUENCE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    140 LAVWALVTLEVLPMLTFINSVPKEEGSNC-IDYASSGNPEHNLIYSLCLTLLGFLIPLSV 198
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          155 IVTWALTILAAIPGFRESKTQWEFTHYTCSLHFPHESLROWKOFQALKLNILGLVLPLLV 214
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       199 MCFFYYKMVVFLKRRSQQQATALPLDKPQRLVVLAVVIFSILFTPYHIMRNLRIASRLDS 258
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  82 DKGTYGDVLC--ISNRYVLHTNLYTSILFLTFISMDRYLLMKYPFREHFLQKKEFAILIS 139
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 155 IIIWALAILASIPALCFFKAQWEFTHHTC----SPHFPDESLKTWKRFQALKLNLLGLIL 210
                                        211 PLLVMIICYAGIIRILLRRPNEKKARAV-----RLIFAITLLFFLLWTPYNL--TVFVS 262
                         195 PLSVMCFFYYKMV-VFLKRRSQQQATALPLDKPQRLVVLAVVIFSILFTPYHIMRNLRIA 253
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              259 -WPQGCTQ-KAIKSIYTLTRPLAFLNSAINPIFYFLMGDHYREMLISKFRQYFKSLTSF 315
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      268 LFTNQCEQSKQLDLAIQVTEVIAYTHCCVNPVIYVFVGERFQKYLRQLFHTYLAKWLPF 326
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             22 LSAFYAIEFIFGLLGNVTVVFGYLFCMKNWNSSNVYLFNLSISDFAFLCTLPILIKSYAN 81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       263 AFQDVLFTNQCEQSKQLDLAIQVTEVIAVTHCCNNPIIYVFVGERFRKYLRQLFQRH 319
                                                                           254 SRLD-SWPQGCTQ-KAIKSIYTLTRPLAFLNSAINPIFYFLMGDHYREMLISKFRQY 308
                                                                                                                                                                                                                                                            Oryctolagus cuniculus (Rabbit).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Lagomorpha; Leporidae; Oryctolagus.
                                                                                                                                                                                                                                                                                                                                                   Liang M., Rosser M.P., Ng H.P., May K., Bauman J.G., Islam I., Ghannam A., Kretschmer P.J., Pu H., Dunning L., Snider R.M., Morrissey M.M., Hesselgesser J., Perez H.D., Horuk R.; "Species selectivity of a small molecule antagonist for the CCRI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            19.8%; Score 326; DB 6; Length 351; 27.8%; Pred. No. 3.6e-21;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      65; Mismatches 137; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    351 AA; 40534 MW; B3FED6117A141552 CRC64;
                                                                                                                                                                                            01-0CT-2000 (TrEMBLrel. 15, Created)
01-0CT-2000 (TrEMBLrel. 15, Last sequence update)
01-JUN-2001 (TrEMBLrel. 17, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                        Pfam; PF00001; 7tm_1; 1.
PRINTS; PR00237; GPRRHODOPSN.
PROSITE; PS00237; GPROTEIN RECEP_F1 1; UNKNOWN_1.
PROSITE; PS0262; G_PROTEIN_RECEP_F1_2; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Created)
Last sequence update)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRT;
                                                                                                                                                                                                                                                                                                                                                                                                         chemokine receptor.";
Eur. J. Pharmacol. 389:41-49(2000).
                                                                                                                                                                                                                                                                                                                                        MEDLINE-20153429; PubMed-10686294;
                                                                                                                                                                                                                                                                                                                                                                                                                  Eur. J. Pharmacol. 389:41-49(2000)
EMBL; AF127527; AAF36452.1; InterPro; IPR000276; GPCR_Rhodpsn.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          83; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PRELIMINARY;
                                                                                                                                                                      PRELIMINARY;
                                                                                                                                                                                                                                       Chemokine receptor.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Best Local Similarity
                                                                                                                                                                                                                                                                                                                            SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                   NCBI_TaxID=9986;
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01-DEC-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Receptor.
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                                                                                                                                                                     QUYM99
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   159 LITWSVAVFASLPGLLFSTCDTENNHTYCKTQYSVNSTTWKVLSSLEINVLGLVIPLGIM 218
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       140 LAVWALVTLEVLPMLTFINSVPKEEGSNCIDYASSGNPEHNLIYSLCLTLLGFLIPLSVM 199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            200 CFFYYKMVVFLKRRSQQQATALPLDKPQRLVVLAVVIFSILFTPYHIMRNLRIASRLDSW 259
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 219 -LFCYSMIIRTLRHCKNEKK----NRAVRMIFAVVVLELGFWTPYNVVLELETLVELETL 273
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           80 ANDKGTYGDVLCISNRYVLHTNLYTSILFLTFISMDRYLLMKYPFREHFLQKKEFAILIS 139
                                                                                                                                                                                                                                      STRAIN=LEW;
Garcia G.E., Chen S., Xia Y., Harrison J., Wilson C.B., Johnson R.J.,
Bacon K.B., Feng L.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  260 PQGCT-QKAIKSIYTLTRPLAFLNSAINPIFYFLMGDHYREMLISKFRQYFKSLTSFRT 317
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Rattus norvegicus (Rat).
Eukaryota, Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Rattus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        21 YLSAPYAIEFIFGLLGNVTVVFGYLFCMKNWNS-SNVYLFNLSISDFAFLCTLPILIKSY 79
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Eukaryota; Medazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          20;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local Similarity 27.3%; Pred. No. 1.5e-20;
Matches 84; Conservative 56; Mismatches 147; Indels 21;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length 360;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
19.4%; Score 320; DB 11; Length 30
Best Local Similarity 29.4%; Pred. No. 1.3e-20;
Matches 88; Conservative 58; Mismatches 133; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            "Mouse CysLT2 Gene.";
Submitted (MAR-2001) to the EMBL/GenBank/DDBJ databases.
EMBL; AB058930; BAB86881.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                     Submitted (CCT-2001) to the EMBL/GenBank/DDBJ databases.
EMBL; AF432872; AAL30398.1; -.
InterPro; IPR000276; GPCR_Rhodpsn.
Pfam; PF00001; 7tm_1; 1.
PRINTS; PR01559; DUFFYANTIGEN.
PROSITE; PS00237; G_PROTEIN_RECEP_FI_1; UNKNOWN_1.
PROSITE; PS50262; G_PROTEIN_RECEP_FI_2; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          309 AA; 35226 MW; 96FACC6B8AF96974 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         360 AA; 41218 MW; 5095C6CD299E1F8B CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       01-JUN-2002 (TTEMBLTel. 21, Last sequence update) 01-JUN-2002 (TTEMBLTel. 21, Last annotation update) Cysteinyl leukotriene 2 receptor.

Mus musculus (Mouse).
01-JUN-2002 (TrEMBLrel. 21, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      309 AA.
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                               C-C chemokine receptor 4.
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6
                                                          122 YPFREHFLQKKEFAILISLAVWALVTLEVLPMLTFINSVPKEEGSN----CIDYASSGNPE 178
                                                                                                                                         179 HNLIYSLCLTLLGFLIPLSVMCFFYYKMV-VFLKRRSQQQATALPLDKPQRLVVLAVVIF 237
                                                                                                                                                                                                 238 SILFTPYHIMRNLRIASRLDSWPQGCTQKAIKSIYTLTRPLAFLNSAINPIFYFLMGDHY 297
                                                                                                                                                                                                                                                            DKGTYGDVLCISNRYVLHTNLYTSILFLTFISMDRYLLMKYPFREHFLQKKEFAILISLA 141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3 QNLSCENWLATEAILNKYYLSAFYAIEFIFGLLGNVTVVFGYLFCMKNWNSSNVYLFNLS 62
                  142 WWALVTLEVLPMLTFINSVPKEEGSNCIDYASSGNPEHNLIYSLCLT----LLGFLIPLS 197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      VMCFFYYKMVVFLKRRSQQQATALPLDKPQRLVVLAVVI-FSILFTPYHIMRNLRIASRL 256
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              221 TMSICYLCLILKVKKRS-----ILISSRHFWTILAVVVAFVVCWTPYHLFSIWELTIHH 274
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Wade-Evans A.M., Javan C., Russell J., Jenkins A.; "Cloning and sequencing of simian G-protein coupled receptors, which may function as SIV/SHIV co-receptors, from cynomolgus macaque
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              YAIEFIFGLLGNVTVVFGYLFCMKNWNS--SNVYLFNLSISDFAFLCTLPILIKSYA--N 81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                  01-DEC-2001 (TrEMBLrel. 19, Created)
01-DEC-2001 (TrEMBLrel. 19, Last sequence update)
01-MAR-2002 (TrEMBLrel. 20, Last annotation update)
G protein-coupled receptor 1.
Macaca fascicularis (Crab eating macaque) (Cynomolgus monkey).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Cercopithecidae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DB 6; Length 355;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match 19.2%; Score 316.5; DB 6; Length Best Local Similarity 29.2%; Pred. No. 2.6e-20; Matches 86; Conservative 59; Mismatches 119; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Submitted (AUG-2000) to the EMBL/GenBank/DDBJ databases. EMBL; AF292382: AAK97052.1; -Interpro; IPPRO01; GECR_Rhodpsn. Pf0001; 7tm_1; 1. PROSITE; PS50262; G_PROTEIN_RECEP_F1_2; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      355 AA; 41370 MW; 1DDE41BE9CAC525C CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                            355 AA.
                                                                                                                                                                                                                                                                                                                                                                                                            PRT;
                                                                                                                                                                                                                                                                                                                                                                                                         PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Cercopithecinae; Macaca
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                 298 REMLISKF 305
                                                                                                                                                                                                                                                                                                                              297 KARLRAIF 304
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NCBI_TaxID=9541;
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